

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

In re: Federal Mogul Global, Inc., *et al.*,

(Bankruptcy Case No. 01-10578 (RTL))

Debtors.

THE OFFICIAL COMMITTEE OF
ASBESTOS CLAIMANTS and
ERIC D. GREEN, as the
LEGAL REPRESENTATIVE FOR
FUTURE ASBESTOS CLAIMANTS,

Plaintiffs,

V.

Civil Action No. 05-59 JHR

ASBESTOS PROPERTY
DAMAGE COMMITTEE,

Defendant.

EXPERT REPORT OF DR. MARK A. PETERSON

PLEASE TAKE NOTICE that the attached expert report of Dr. Mark A. Peterson, dated November 29, 2004, is filed on behalf of Plaintiffs the Official Committee of Asbestos Claimants (the "ACC") and the legal representative for future asbestos personal injury and wrongful death claimants (the "Futures Representative"), in anticipation of the Asbestos Claims Estimation Hearing (the "Hearing") scheduled to commence June 14, 2005. *See* Case Management Order [D.I. 17.].

Dated: Wilmington, Delaware
April 26, 2005

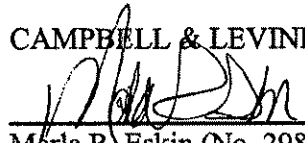
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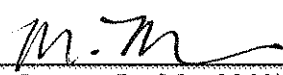
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**Turner and Newall Inc. Projected Liabilities
for Asbestos Personal Injury Claims**

Mark A. Peterson
Legal Analysis Systems

November 29, 2004

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1. Overview of Report

This report summarizes results of analyses to estimate the liabilities of Turner and Newall (T&N) for asbestos personal injury claims in the United States (U.S.) that had been filed and were unresolved (“pending claims”) and claims that would be filed in the future (“future claims”) as of the date of its U.S. bankruptcy petition, October 1, 2001, and for asbestos personal injury claims in the United Kingdom (U.K.) that had been filed and were unresolved (“pending claims”) and claims that would be filed in the future (“future claims”) as of January 1, 2002. The report’s estimates of the number of future asbestos claims and the indemnity values of T&N’s pending and future asbestos claims in each country are forecast based on assumptions that extend into the future the patterns and trends of past claim filings and indemnity payments for the company in each country. These estimates are based on forecasting methods first developed in the U.S. over twenty years ago for insurance companies that have been used regularly since then to derive forecasts of asbestos liabilities and that have become a standard method for making such forecasts. As described in the next section of this report, I have used these methods in engagements for a wide range of parties and have testified in court many times as to forecasts based on these methods.

The report first discusses T&N’s corporate activities that led to its asbestos liabilities and discusses the data and methods used to estimate liabilities in both countries. The report then presents estimates of T&N’s liability as of October 1, 2001 for pending and future claims in the U.S. Next the report presents similar estimates for T&N’s liabilities in the U.K. The report then discusses alternative assumptions about matters affecting liability forecasts for T&N in each country and presents sensitivity analyses that show how the liability estimates would change with changes in key assumptions used in the estimation analyses.

Based on the analyses and information described in this report, it is my opinion that the present value of liability for asbestos bodily injury claims (pending and future) is at least \$11.0 billion in the U.S. as of October 1, 2001 and at least £229 million in the U.K. as of January 1, 2002 (using the year end date for U.K. claims for convenient use of the U.K. data).

2. Dr. Peterson’s Qualifications

For over twenty years I have studied, written about and participated as an expert in asbestos litigation and other mass tort litigation. I am a lawyer, a graduate of Harvard Law School and a recognized scholar on asbestos and other mass tort litigation. I have a doctorate in social psychology from the University of California, Los Angeles. For over twenty years I conducted research on asbestos and other mass tort litigation as a founding member of the RAND Corporation’s Institute for Civil Justice. I have published many scholarly, peer-reviewed articles on asbestos litigation, mass torts, and workers compensation including articles on how asbestos and other mass tort claims arise, how the values of asbestos bodily injury claims are determined by medical and legal issues, evaluations of claims facilities used for paying asbestos and other mass tort claims, and other subjects related to asbestos litigation. I have taught courses on mass torts at UCLA Law School and the RAND Graduate Institute. My resume is attached to this report as Exhibit 1.

I am an expert on claim values, claims procedures and estimations of liabilities for fifteen asbestos trusts. I am a trustee of the Fuller Austin Settlement Trust, an asbestos trust, and a director of TSI, a nonprofit corporation that administers the trust distribution procedures for seven asbestos trusts. I have worked as an expert on asbestos litigation for judges, defendants,

insurance companies, actuarial firms, other businesses, law firms and claimants' committees in bankruptcy.

I have worked for four U.S. District and Bankruptcy Courts as the Court's expert on how asbestos claims are valued and on asbestos claims procedures and trusts. As the Special Advisor to U.S. District Court Judge Jack B. Weinstein and U.S. Bankruptcy Court Judge Burton Lifland I helped the courts and parties to restructure the Manville Trust, establishing the Manville Trust Distribution Procedures that became a model used in subsequent bankruptcy cases and by later-created trusts to process, evaluate and pay the hundreds of thousands of asbestos claims that they have received so far.

I have been an expert in more than twenty other bankruptcies and class actions in different cases working for parties with divergent interests: defendant asbestos companies, insurance companies, claimants' committees, and court-appointed representatives for future claimants. In each of these cases I have provided descriptions and quantitative forecasts of pending and future asbestos bodily injury claims using the standard forecasting methods that I describe and use in this report. I have testified in court twenty times about my forecasts of asbestos liabilities. My forecasts and analyses have been accepted and used as the court's basis for findings of aggregate asbestos liabilities in the bankruptcy proceedings of Eagle-Picher, National Gypsum, Babcock and Wilcox, Armstrong World Industries, Western Asbestos, H. K. Porter, E. J. Bartel, and Raymark.

I have been recognized by courts as an expert on all areas that I address in this report and the descriptions and analyses in this report come from my scholarship and work as an expert on asbestos litigation.

I have been retained by the Federal Mogul Official Committee of Asbestos Personal Injury Claimants ("ACC") as an expert for purposes of estimating asbestos liabilities and providing testimony on those matters. This report has been prepared as part of that engagement.

3. T&N's Liability for Asbestos Claims in Tort Litigation: U.K. and U.S.

3.1. Outline of Discussion of Liability Forecasts

This section and the five that follow discuss and present results of analyses to estimate the liability of T&N for asbestos personal injury claims that had been filed and were unresolved ("pending claims") and claims that would be filed in the future ("future claims") as of the date of T&N's bankruptcy petition in the U.S., October 1, 2001, and January 1, 2002 in the U.K.

The liability forecasts in this report for both the U.S. and U.K. are based on standard forecasting methods that have been used by many researchers over the past twenty years, on substantial data about T&N's past litigation experience, and the knowledge that I have gained from working as an expert and researcher on asbestos litigation over more than twenty years.

I briefly discuss the bases of T&N's asbestos liabilities in section 3.2 and then discuss T&N's data about asbestos claims and methods used to estimate T&N's liability in Sections 4 and 5. In Section 6, I describe data on U.S. pending claims and estimates of the number of future claims that I forecast would be filed in the U.S. against T&N after October 1, 2001 and forecast T&N's U.S. tort liability applying the estimated U.S. tort litigation values described in that section. Section 7 describes similar analyses leading to the forecast of T&N's tort liability in the U.K., using U.K. data and the U.K. tort litigation values described in that section. All of these estimates of the number of future asbestos claims and the indemnity values of T&N's pending and future asbestos claims are forecast based on assumptions that extend into the future the pattern and

trends of T&N's past claim filings and indemnity payments.

3.2. Bases of T&N's Asbestos Liability

The substantial liabilities that T&N faces in two countries, both in the U.K. and the U.S., distinguish it from other companies that have sought bankruptcy protection under U.S. law. T&N's liability in the U.S. arises from four primary sources. (1) T&N mined, processed, and sold raw asbestos fibers from the 1930s into the 1980s selling to many businesses including Johns-Manville, Raybestos-Manhattan, Certaineed and Keasby & Mattison (Keasby), a T&N subsidiary. (2) Among the several T&N subsidiaries that sold asbestos products and were sued in U.S., T&N's subsidiary Keasby itself mined asbestos fibers and manufactured such a wide range of asbestos containing products that it became known as a "mini-Manville", likened to Johns-Manville, the dominant U.S. manufacturer of asbestos-related products. Asbestos victims exposed to Keasby products sued T&N under two primary theories: T&N's sales of asbestos fibers to Keasby and T&N's alleged control and domination of Keasby. T&N owned Keasby from 1934 until Keasby's dissolution in 1962. (3) T&N manufactured Limpet, a spray-on asbestos containing insulation product from 1934 to 1974. In contrast to other spray-on insulation products, Limpet consisted mostly of asbestos fibers (64 percent), which made it both a particularly effective insulator and a particularly dangerous product. Historically most U.S. claims against T&N have involved exposures to Limpet. (4) T&N has been sued increasingly for conspiracy in suppressing information about dangers of asbestos containing products based on T&N's early and extensive knowledge about asbestos injuries among its own workers and participation in research on asbestos health issues and its actions that limited distribution of information about such dangers. T&N's unfortunate history in suppressing information about the dangers of asbestos is unusually well documented and has been summarized in a recent book published by Oxford Press (Geoffrey Tweedale, *Magic Mineral to Killer Dust: Turner & Newall and the Asbestos Hazard*, 2000).

T&N also faced liabilities for its separate business activities and operations in the United Kingdom. As in the U.S., a substantial amount of T&N's liability in the U.K. arises from its manufacture of Limpet, a product that was used even more extensively in construction in the U.K. than in the U.S. But T&N also faced liability for a broad range of products in the U.K. where it was the dominant manufacturer of asbestos containing products, like Johns Manville in the U.S. T&N and its subsidiaries (collectively described as T&N) had extensive business operations in the U.K. that involved manufacturing and sales of asbestos containing products and raw asbestos fibers and caused many persons to be exposed to asbestos. In the U.K., T&N was sued for the asbestos injuries of employees of T&N, employees of other companies who were exposed to asbestos at work by T&N's asbestos products or business operations, and others who worked or lived in the vicinity of places where T&N asbestos products were manufactured or used.

Plaintiffs who assert claims against T&N typically allege one or more of a standard set of asbestos related injuries. These include three groups of cancers all of which have been shown to be caused by exposures to asbestos: malignant mesothelioma, a rare cancer of the pleural tissue surrounding the lungs and that separates the abdominal and chest cavities, whose only known cause is from exposure to asbestos; lung cancer; and several gastrointestinal cancers. A substantial majority of plaintiffs claimed a nonmalignant disease: either asbestosis, a disease characterized by scarring and fibrosis of the lung tissue, or pleural disease, involving scarring of the pleura resulting in pleural plaques or pleural thickening. In each country settlement values differed among these diseases: T&N's settlement payments were greatest for mesothelioma and lowest for nonmalignant claims. The relative frequency of each type of disease and amounts paid by T&N to resolve claims differed between the two countries contributing to the different liability forecasts for each country.

Asbestos liabilities in the U.K. are considerably smaller than in the U.S. for several reasons. First, far fewer claims have been filed in the U.K. than in the U.S. Second, while T&N paid substantial amounts on average to resolve asbestos claims in each country, T&N has paid more on average to resolve asbestos claims in the U.S. for each of the asbestos related diseases. Third, settlement averages in the U.K. have not been increasing as in the U.S. and are not subject to the same pressures toward future increases as we see in the U.S. In the U.S., T&N has been one of many asbestos defendants each of whom contributed only a small fraction to plaintiff's compensation under U.S. laws governing joint tortfeasors' responsibilities to injured persons. After the collapse of CCR and bankruptcies of other defendants, who had paid larger indemnity shares, T&N faced a growing share of the total asbestos liabilities. In the U.K., unlike the U.S., T&N has always been the primary "target" defendant paying the entire or almost the entire amount of money received by many of the asbestos plaintiffs. The possible insolvencies of other U.K. defendants would not have the same impact on future T&N payments as in the U.S.

Until 2001 T&N addressed and defended U.S. law suits as a member of the Center for Claims Resolution ("CCR") a consortium of asbestos defendants created in 1988 to replace a previous consortium, the Asbestos Claims Facility ("ACF"). Both organizations were formed by defendants for purposes of achieving more favorable settlements and reducing defense and administrative expenses. Because the members of CCR accounted for substantial portions of all recoveries that plaintiffs might expect to receive for their injuries, CCR members were able to obtain more favorable settlement terms by negotiating jointly than individual defendants could have standing alone. Wielding this joint power, CCR refused to enter into settlement discussions until claims were ready for trial or else entered into group settlements with plaintiffs' law firms on terms favorable to CCR members. These group settlements controlled the flow of claim payments, capped annual amounts that would be paid, and imposed criteria that plaintiffs were required to satisfy to receive payment, criteria that were stricter than members could have required outside of CCR. These group settlement agreements reduced the total indemnity payments to plaintiffs by CCR members, including T&N, and also allowed CCR members to limit their defense and administrative costs. The CCR membership also involved a limited joint subsidization in which every CCR member who was named in a law suit would contribute to settlement of the suit pursuant to a complex formula agreed to by the CCR members.

T&N benefited especially from its CCR membership. Plaintiff lawyers had strong incentives to take the substantial combined offers that CCR could make on behalf of its twenty members, which dampened their interest in undertaking the discovery and preparation that would have lead to substantial verdicts against T&N, given the corporate history documented by Tweedale's 2000 book. Instead, T&N was able to maintain relative obscurity as a small member among the twenty companies in CCR.

4. Data for asbestos bodily injury claims involving T&N

We received separate asbestos claims databases for the U.K. and the U.S. that we used to make the forecasts in this report. The U.K. database was created by T&N and used by it in its administration and defense of asbestos claims in that country. Data in the U.S. claims database were drawn primarily from a common database that the CCR maintained for all law suits filed against any member. This CCR database included detailed information about plaintiffs, their claims against CCR members, litigation events, indemnity costs and other matters useful in estimating T&N's liability for pending and future claims. When it left CCR, Federal Mogul obtained extracts of data for each of its entities that were CCR members, including an extract for T&N claims, and then continued to maintain and add to these databases until Federal Mogul's October 1, 2001 bankruptcy petition date. My company, Legal Analysis Systems (LAS), received

two different extracts of data involving U.S. T&N claims. These data bases were produced at different times:

- (1) December 26, 2001
- (2) February 6, 2003.

We received one database of T&N's asbestos claims in the U.K. in September 2002. The database appears to provide complete data through year 2000 and somewhat incomplete data for 2001. We received limited supplemental data on November 24, 2004 for approximately 4,000 claims that had been filed against T&N prior to the October 1, 2001 petition date but that had not previously been included in either data base listed above. We did not use this supplemental data for our forecasts in this report. Because the supplemental data identifies additional recently filed claims, the additional data would have slightly increased our forecasts, but would not have produced material changes.

To my knowledge experts for parties to the insolvency proceedings in both the U.K. and U.S. have access to all of the data that we have used for analyses and forecasts in this witness statement. Like LAS, those experts also have access to representatives of T&N both in the U.K. and in the U.S. to discuss any questions about the company's asbestos experiences and liabilities in either country and to request further data or information about such liabilities. Legal Analysis Systems prepared copies of each of these databases which were sent to the law firm Caplin and Drysdale who in turn sent the database to experts working for parties in the U.K.

5. Estimating Liabilities for Asbestos Bodily Injury Claims

Forecasts of asbestos liabilities are needed and have become commonplace in many different circumstances. Asbestos defendants estimate their present and likely future liabilities both for their own corporate planning and also as part of financial reporting. Insurance companies forecast asbestos liabilities to create reserves for specific insureds. Insurance rating organizations forecast liabilities of insurance companies. Financial analysts forecast liabilities of specific asbestos defendants and insurance companies. Businesses forecast liabilities of other companies that face asbestos liabilities in order to determine whether or not to engage in business activities with the companies that face such liabilities. Asbestos trusts are required to forecast their liabilities in order to determine how much money must be reserved for future claimants and what amount can be paid to claimants with presently pending claims, forecasts that are required by the U.S. Bankruptcy Code. Parties to bankruptcy proceedings forecast liabilities in order to draft reorganization plans and disclosure statements. Bankruptcy courts estimate the asbestos liabilities of debtors. Other courts estimate the asbestos liabilities of particular defendants in the course of class action, insurance coverage or other litigation.

These forecasts have been done in many ways, with highly varying quality and credibility. Credible forecasts of an asbestos defendant's liability must look together at several sources of information. First, forecasts must draw upon data about the defendant's past and current experience with asbestos claims--counts of claim filings, distributions of asbestos diseases, resolutions of claims both with and without payment, trends for all of these elements of liability. Next, the forecast should consider developments and the state of asbestos litigation at the time of the forecast and reasonable expectations about future developments. Then the forecast must reflect the epidemiology of asbestos related diseases, trends in the incidence of asbestos related disease both past trends and reasonable forecasts of future trends as well as expected trends in filings of claims for those diseases and trends in the amounts paid to indemnify those claimants. The forecasts in this report are based on all of these sources.

T&N's asbestos liability is a sum of its liability for pending claims, its liability for future claims and its costs for administering and defending those claims. I do not estimate its costs for administering and defending asbestos claims in this report, but T&N's costs would have been considerable. Typically in the U.S. defense and administrative costs can add as much as 50 percent to indemnity costs to as much as doubling indemnity costs. T&N's defense and administrative costs would have been far greater after it left CCR in January 2001.

The following formula is the basis for estimating the total indemnity that T&N would pay to resolve these claims:

$$\text{Number of Claims} \times \text{Average Resolution Cost} = \text{Forecast Indemnity}$$

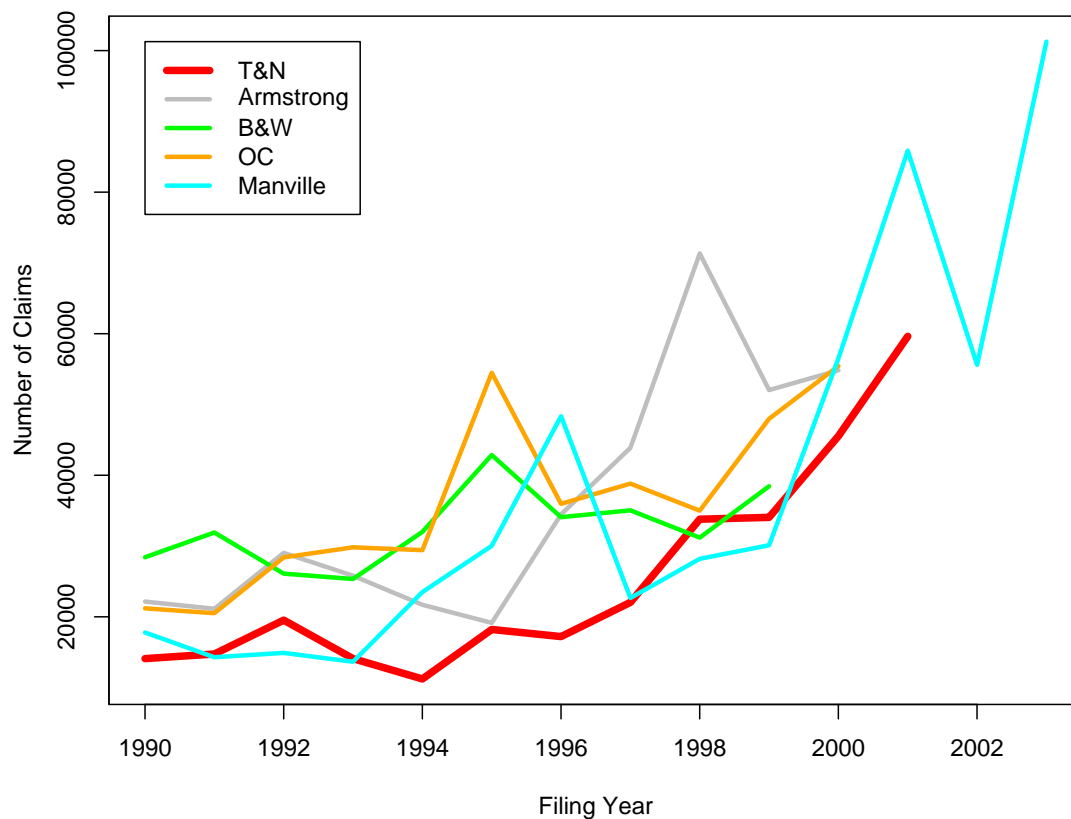
Here, counts of pending claims are drawn from T&N's databases. I forecast counts of future claims by drawing upon T&N's claims databases, epidemiological forecasts of the number of asbestos related cancer deaths and my knowledge about the asbestos litigation environment. Estimates of average resolution costs are based on T&N's historic experience in resolving claims and in the U.S. recent events that will change this history. Derivations of these cost estimates are described in Section 6.1 of this report for U.S. claims and in Section 7.2 of this report for U.K. claims.

For better precision, the formula above should be carried out separately for each asbestos disease. For T&N in both the U.K. and U.S. and for every asbestos defendant, settlement values and resolution costs vary among different asbestos related diseases (Table 1, below). T&N paid far more on average to resolve mesothelioma claims than any other disease. Resolution costs differed among all other diseases.

6. Forecasted Tort Liability for U.S. Claims

Like other major asbestos defendants in the U.S., T&N saw substantial increases in the most recent years both in the number of new asbestos claims that it faced (Figure 1) and in the amount that it had to pay to resolve asbestos claims, particularly for cancers (Figure 2). Together, these trends were dire for asbestos defendants, leading to bankruptcy filings for each defendant shown in these Figures (Manville filed in 1982, but all others filed in 2000 or 2001). And among these major defendants, T&N faced far sharper rates of increases in claim filings. In the most recent years, since 1998, filings against T&N averaged over 40,000 asbestos law suits per year, a rate comparable to other major asbestos defendants. Before that period, T&N averaged far fewer claims than other major asbestos defendants, under 20,000 in every year. Only in recent years have plaintiffs' lawyers come to focus on T&N as a particularly culpable asbestos manufacturer that had potentially broad liability exposure to many injured workers (see Tweedale, 2000).

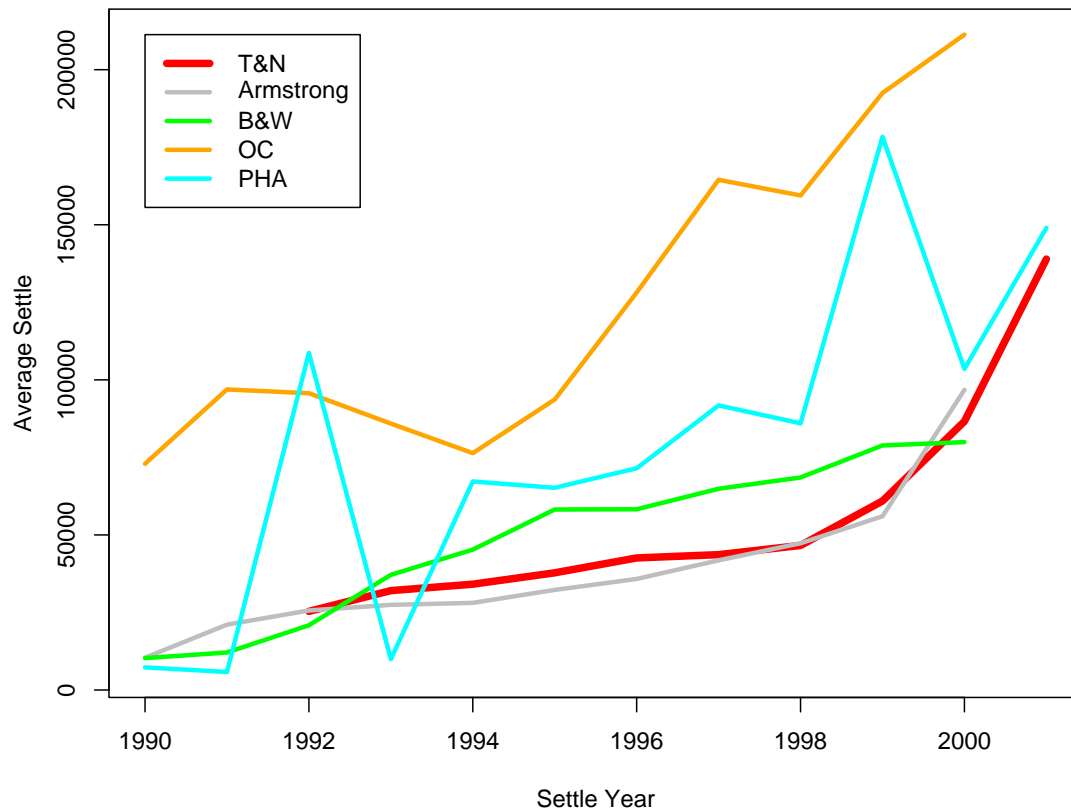
Figure 1: Claim Filings, 1990-2003



Note: Entries are annualized for bankruptcy year.

Similarly, while each of these major asbestos defendants paid increasingly large amounts to settle asbestos claims in recent years, increases in mesothelioma settlements have continued to be sharper for T&N. As Figure 2 shows, through year 2000 the amounts paid by T&N and Armstrong to settle mesothelioma claims increased at comparable rates as members of the defendant consortium the Center for Claims Resolution, with sharp increases for both in 2000. T&N's mesothelioma settlements increased even more sharply through the first nine months of 2001 after T&N left the CCR.

Figure 2: Annual 1990-2001 Settlement Averages for Mesothelioma



6.1. Estimation of Values for Each Disease

Determinations of the amounts that T&N would have to pay to resolve current and future claims as of October 2001 are complicated, because T&N now faces a changed litigation environment that was more dangerous and more costly than the environment in which it had settled past claims. T&N suffered three potentially catastrophic developments in the months before its bankruptcy filing. First, in 2000 (in 2001 for the paperback) the Oxford Press published a damning expose of T&N's asbestos history (Geoffrey Tweedale, *Magic Mineral to Killer Dust: Turner & Newall and the Asbestos Hazard*) that drew attention to the company and, in effect, laid out the case for large compensatory and punitive verdicts and sharply increased settlements. Second, after the collapse of the Center for Claims Resolution (CCR) in early 2001 T&N lost the obscurity that it had been able to maintain as one of twenty members of that defense consortium. The timing of these two events would have been costly to T&N: just as its culpability and liability had become prominent, it lost the protections of CCR membership where it had been a relatively insignificant one of twenty members. Third, T&N's now heightened visibility and exposure to liability coincided with the 2000-2001 bankruptcy filings by seven other major asbestos defendants. Again the timing was bad for T&N: Just as plaintiffs lost the last of their target defendants T&N had now become a highly visible and available target.

These increased pressures are shown in T&N's claims database by the sharp increases in claim filings in 2000 and even sharper increases in 2001 (Figure 1) and by its sharply increased settlement costs for mesothelioma claims (Figure 2). After leaving CCR, T&N began immediately to pay far greater amounts to settle mesothelioma claims, because the expedited trial settings given to mesothelioma victims exposed T&N to early trials where it would have been an

individual defendant burdened by devastating corporate history and documents. Even within the eight months between T&N's exit from CCR and its bankruptcy petition, mesothelioma plaintiffs began looking to T&N as a source to replace compensation lost through the bankruptcy filings of previous target defendants.

But we have not yet seen data showing how these pressures would have affected T&N's settlements of other claims. Most settlements reported in T&N's database had been made when it was a member of the CCR, settlements which predated and insulated T&N from effects of the catastrophic developments of 2000 and 2001. After it left CCR during the eight months before its bankruptcy petition T&N did not face trial pressures for claims of other asbestos-related diseases and, therefore, did not yet face increased settlement pressures for those claims. T&N mostly stopped settling lung cancer or other cancer claims after leaving CCR, settling during 2001 only 18 percent of the number of lung cancers and only 11 percent of the number of other cancers that it settled in 2000. Similarly, T&N settled few nonmalignant claims during 2001 other than those claims carried over from CCR that T&N selected as having likely difficulty in establishing exposure to T&N.

T&N's claims database is useful for forecasting the values that the company would now have to pay to resolve asbestos claims, showing the increasing trend in mesothelioma settlements during T&N's last year in the CCR and the further increase during the eight months after it left CCR. However, T&N's data are not sufficient by themselves. To forecast the trends and values of T&N settlements for other asbestos-related diseases, we look to both T&N's data on its trends for mesothelioma settlements and settlement data from other asbestos defendants.

6.1.1. General Data on Increasing U.S. Claim Values

The following tables shows annual settlement averages for T&N and four other asbestos defendants all of whom also sought bankruptcy protection since 2000: Armstrong, Babcock and Wilcox, Owens Corning and Porter Hayden. This table has two implications important to forecasting T&N's future asbestos liabilities. First it demonstrates the consistent general trend of increasing settlements by asbestos defendants. As shown by the trends for all five defendants, asbestos settlement values have increased in the U.S. since the early 1990s. Second, the table also demonstrates how CCR membership had limited the amounts that its members, here Armstrong and T&N, had to pay to resolve asbestos claims and dampened the trends of increasing settlement amounts. CCR member Armstrong has always been a significant defendant with one of the largest CCR shares. T&N has now become a significant defendant, but only after CCR ceased to operate. The settlement amounts paid by these two CCR members have been consistently less than settlements by the other three defendants listed in Table 1, even though neither Babcock & Wilcox nor Porter Hayden was a prominent asbestos defendant. Porter Hayden, which is a distributor and installer of asbestos products in the mid-Atlantic states that has always been a secondary source of payments to asbestos plaintiffs, nevertheless paid substantially larger settlements than T&N for each asbestos-related disease. Mesothelioma settlements by Porter Hayden reached or exceeded \$150,000 in two of the last three years before its bankruptcy petition. Among the three non-CCR members in Table 1 only Owens Corning's is regarded as a target defendant. In the past Owens Corning's settlements have been much greater than T&N's, but this difference has been closing (Figure 2) and the size of Owens Corning's settlements now provide a measure of what T&N's future settlement are likely to become. Given the T&N corporate history documented by Tweedale, T&N's future tort settlements would have been soon likely to equal or surpass Owens Corning's.

Table 1a: Trends in Settlement Averages for T&N and Four Other Defendants

Year	Meso					Lung				
	T&N	OC	PHA	AWI	B&W	T&N	OC	PHA	AWI	B&W
1990		\$72,937	\$7,300	\$10,412	\$10,272		\$28,549	\$1,985	\$5,346	\$5,533
1991		96,911	5,819	21,072	12,106		35,692	23,989	9,154	6,684
1992	\$25,355	95,687	108,702	25,643	20,878	\$14,440	37,787	10,156	13,347	7,760
1993	32,048	85,905	9,950	27,452	37,136	10,808	37,222	9,149	11,406	15,406
1994	34,119	76,373	67,245	28,092	45,280	9,104	30,815	13,895	10,880	14,534
1995	37,785	93,663	65,204	32,270	58,201	14,009	31,696	9,210	12,152	18,738
1996	42,580	128,159	71,496	35,810	58,279	9,734	29,790	8,476	11,080	20,332
1997	43,635	164,493	91,762	41,808	64,896	14,033	29,241	16,962	13,201	23,078
1998	46,608	159,445	85,990	47,316	68,531	12,425	36,416	17,101	12,458	27,431
1999	60,936	192,476	178,358	56,012	78,853	12,179	49,635	55,742	12,272	23,046
2000	86,606	211,304	103,537	96,760	79,930	14,350	49,116	20,231	17,619	28,036
2001	138,939		149,008			18,956		26,022		

Table 1b: Trends in Settlement Averages for T&N and Four Other Defendants

Year	Other Cancer					Nonmalignant				
	T&N	OC	PHA	AWI	B&W	T&N	OC	PHA	AWI	B&W
1990		\$16,380	\$2,059	\$2,760	\$4,980		\$11,390	\$3,110	1,582	\$3,343
1991		15,061	158	4,188	5,797		9,687	576	2,441	3,553
1992	\$10,165	18,330	4,851	8,072	5,175	\$3,891	12,153	3,259	4,146	3,653
1993	5,099	17,140	9,696	5,217	10,297	3,383	11,266	2,908	2,913	4,472
1994	4,978	18,488	4,541	5,651	10,978	2,501	10,032	2,994	2,817	4,491
1995	6,984	15,408	3,503	7,325	12,271	2,865	7,403	2,602	2,878	4,993
1996	5,182	14,938	19,391	6,079	14,154	3,144	10,418	4,046	3,493	5,227
1997	6,241	12,024	6,834	6,942	12,054	5,008	10,332	5,417	3,953	4,804
1998	5,744	15,864	9,150	5,662	16,986	2,446	10,121	4,221	1,908	5,547
1999	5,792	21,839	10,189	6,214	13,632	3,085	7,041	4,371	3,327	6,779
2000	6,395	15,521	10,609	7,395	12,618	3,227	6,699	6,066	4,246	5,037
2001	4,590		11,488			1,296		7,665		

Note: Indemnity payments averaged across all resolved claims including claims resolved without payment. Payments are adjusted for inflation using actual historic CPI and stated in year 2001 dollars. From publicly available data. Owens Corning (OC) entries exclude verdicts. PHA is Porter-Hayden; AWI is Armstrong World Industries; B&W is Babcock and Wilcox. T&N settlements among claims filed in 1992 or later.

The general pressures on asbestos defendants to increase asbestos settlement values reflected in Table 1 increased further after 2000 with a series of important events: (a) eight asbestos defendants who were paying the largest shares of compensation to asbestos plaintiffs filed for bankruptcy protection between February 2000 and October 2001 and (b) in January 2001 the CCR dissolved removing the single source of largest payments being received by U.S. asbestos plaintiffs. Together these events eliminated sources providing most of the money paid to asbestos victims in the U.S. With these losses of compensation, plaintiffs then looked to remaining asbestos defendants to make up the lost compensation. Plaintiffs increased their demands on defendants who remained in the litigation and forced increases in settlements among those defendants. These effects of the 2000-2001 bankruptcies and CCR's dissolution have been

broadly recognized and noted by asbestos defendants, lawyers and other commentators on U.S. asbestos litigation. Table 2 shows representative increases among a group of California distributors and installers of asbestos insulation since 2000. T&N similarly would have faced these pressures and increases in tort litigation and reasonable forecasts of its future asbestos liabilities must assume increasing settlement values that T&N would have had to pay to resolve its pending and future claims in the tort system.

Table 2: Average Settlements Among Northern California Distributors/Contractors

Year	Disease			
	Meso	Lung	Othc	Nonm
1998	\$134,953	\$2,226		\$8,626
1999	152,782	31,291	12,917	15,658
2000	155,938	53,310	17,296	13,933
2001	223,622	49,707	9,901	16,321
2002	327,992	135,810	145,601	12,377

Note: Average settlements for AC&S, E.J.Bartels, Thorpe, and Metalclad with plaintiffs represented by three law firms (Kazan, McClain, Edises, Abrams, Fernandez, Lyons and Farrise; Brayton Purcell; The Wartnick Law Firm) that represent most Northern California plaintiffs. Payments are adjusted for inflation and stated as 2001 dollars. Settlements of less than \$500 (in then current dollars) were deleted.

6.1.2. Past Increases in T&N Settlement Values

T&N's data confirm that its past settlements in the U.S. increased in value along with most other asbestos defendants. As Table 3 shows, the T&N settlements in the U.S. increased between 1998 and 2000 for all diseases. During those years T&N was a member of the CCR which provided defense, administration and settlement of T&N's claims in common with other CCR members.

Table 3: Trends in T&N U.S. Settlement Averages

Period	SetYr	Meso	Lung	Othc	Nonm
CCR-Yrs	1998	\$46,608	\$12,425	\$5,744	\$2,446
CCR-Yrs	1999	60,936	12,179	5,792	3,085
CCR-Yrs	2000	86,606	14,350	6,395	3,227
Post-CCR	2001	138,939	18,956	4,590	1,296

Note: Average settlement amounts are expressed in year 2001 dollars.

CCR's dissolution in January 2001 changed T&N's position in litigating and settling asbestos claims and increased the amounts that it had would have to pay to settle cases. These changes are partially reflected in T&N's settlement averages in the nine months of 2001 before it filed for bankruptcy protection when T&N's average settlements for both mesothelioma and lung cancer increased with great increases for mesothelioma.

6.1.3. T&N's U.S. Settlement Values Would Have Continued to Increase

T&N's settlements began to increase for mesothelioma in 2001 and would have continued to increase among all diseases had the company not filed for bankruptcy protection in October 2001. As a result, its liability after September 2001 was greater than would be reflected by its data on past settlements. Six important factors drive the continuing increase in settlement values of U.S. asbestos claims against T&N and require that its historic settlement data be adjusted to reflect these increasing settlement values.

First, T&N's former membership in CCR had provided it with substantial savings in both defense and indemnity costs that T&N lost when CCR dissolved. CCR provided tactical advantages that would be unavailable to T&N outside of CCR. As the largest provider of settlement dollars CCR was able to extract favorable settlements for its members. Plaintiffs' law firms were willing to give CCR favorable settlements in return for the large, collective CCR payments. Moreover, CCR settled asbestos claims in large groups saving plaintiffs' law firms transaction costs and generating large total payments to the firms and their clients. With CCR's dissolution T&N instead had to settle asbestos cases on its own without CCR's tactical advantages in negotiating favorable settlements. T&N's 2001 settlements reflect the beginnings of these increases. Other former CCR members have experienced even greater increases than T&N had during the limited time between the end of CCR and T&N's bankruptcy ten months later.

Second, T&N had been able to hide from litigation scrutiny as a CCR member. T&N had an unfortunate history with its asbestos products and activities that could have produced large adverse verdicts and large settlements. But it was protected as a CCR member. Plaintiffs' law firms were content to get the relatively large payments that CCR provided rather than working up and trying cases against individual CCR members. In any event, CCR would not have negotiated separate T&N settlements. Plaintiffs' lawyers had to settle T&N claims when they settled with CCR so law firms would not extract the separate value created by T&N's sordid history. T&N lost this obscurity with the publication of Tweedale expose and with the collapse of the CCR.

Third, the historic settlements in T&N's database had all occurred before the spate of 2000-2001 bankruptcies had fully affected its asbestos liabilities. If T&N had continued in tort litigation (which must be assumed in determining its asbestos liabilities within its bankruptcy), it would have paid more in the future simply because all the other big payers had gone into bankruptcy. This effect is widely recognized. The increased focus on T&N as a remaining defendant would have been exacerbated by T&N's inflammatory history. T&N would have been the particular target for plaintiffs and its values would have increased more after the 2000-2001 bankruptcies than would have values for other defendants.

Fourth, all three of these specific causes of increasing claims -- CCR's dissolution, T&N's inflammatory history with asbestos, bankruptcies of eight primary defendants -- are superimposed on the broad increases in asbestos settlements that had been occurring for ten years, that showed no signs of abating in 2001 and that continue today. We would have had to forecast continuing increases in T&N's settlement values in the U.S. even without the powerful effects of these three specific causes.

Two final technical matters involve CCR's practices in settling and allocating claim payments among its members. CCR's practices in allocating indemnity payments among its members makes CCR data about T&N's settlement values claims inappropriate for forecasting future payments by T&N outside CCR, unless analyses of the data are adjusted. CCR had a policy of "cross-subsidization" in which all members who were named in a law suit paid into the settlement of that claim whether or not there was evidence of exposure to the products of that member. CCR required that a plaintiff establish evidence of exposure for only one CCR member; evidence of responsibility of one CCR member triggered CCR's agreement to pay the claim.

CCR chose not to require evidence of exposures to products of every CCR member that a claimant named in his/her law suit, because CCR did not want to undertake an expensive and internally divisive determination and then assess evidence about the relative responsibility among its members. As a result of this policy, T&N paid more claimants compared to the number it would have paid outside CCR, i.e. claims where T&N was named in a law suit but the plaintiff would have no evidence of T&N's liability. But in turn T&N paid less on average to each settled claim, because other members contributed to the settlement of claims where T&N would have liability even in cases where those other members would have paid nothing outside of this CCR arrangement. CCR members assumed that this cross subsidization policy netted out, reflecting approximately what each member would have paid had contribution issues been thoroughly pursued, but it resulted in every member paying lower average amounts in more claims than would have happened outside CCR. For T&N this means that the CCR data overestimates the percent of claims in which T&N would pay settlements, but underestimates the averages when they did pay. We take both of these limitations of CCR data into account in forecasting T&N's future liability for asbestos claims.

As a final, technical matter, most of T&N's settlements as a CCR member were group settlements in which CCR agreed with plaintiffs' law firms to pay modest amounts of money to a large group of plaintiffs represented by the firm based on submission of required, but limited disease and exposure evidence. If CCR had instead conducted individual negotiations and discovery for each claim covered by group settlements, it would likely have refused to pay some claims that it paid through these group settlements, but with the policy of group settlements CCR members again concluded that the group process approximated or lessened what they would have to pay in indemnity while lessening defense costs and risks of being taken to trial. Indeed, CCR did not offer these group settlements for all claims or all law firms. When CCR instead settled claims individually (so called "trial ready" cases), CCR and plaintiffs each spent more in the settlement process, in discovery and in providing and reviewing more extensive documentation and CCR also gave up its tactical advantages of group settlements. For both reasons CCR had to pay much more for each of these "trial ready" settlements. Unlike claims resolved through group settlements, these "trial ready" claims were reviewed and paid individually and claimants had to provide the more extensive documentation that is involved with preparing for trial, so that claimants demanded and received more money for "trial ready" claims. The CCR data clearly demonstrate these differences in value.

During its nine months of settlements after it left CCR, T&N carried on and actually expanded this group settlement policy as an individual defendant paying many claims at values lower than CCR had. In 2001, seventy percent of T&N's settlements of asbestosis and pleural claims (10,000 claims) were for \$300 or \$400 or less. T&N settled few other cancer claims in 2001, only 49, but many of these were also for small amounts, thirty percent for \$600 or less. T&N's defense counsel described its settlement practices for these cases as clearing out CCR-era claimants who would have had difficulty establishing exposure to T&N. To plaintiffs' lawyers who foresaw a high likelihood that T&N would file bankruptcy even these low payments were attractive, since T&N's bankruptcy would result in even lower pro rata payments to plaintiffs (because trusts do not pay 100 percent of claims' values) that would be paid only after many years of delay. Small payments before the bankruptcy were better than even smaller payments years later. Because of the expanded use of these group settlements, T&N's average settlement values decreased for nonmalignant and other cancer claims in 2001, even while settlement values increased for claims that were resolved individually (Table 3). This was a transitory pattern reflecting T&N's attempt to resolve the many claims that had built up in CCR and the suppression of values in anticipation of T&N's bankruptcy filing later in 2001.

6.1.4. Estimating Future Increases in T&N's U.S. Settlement Values

For all these reasons, T&N would have had to pay more to resolve claims in U.S. tort litigation than it had in the past as a CCR member. Because it filed for bankruptcy protection, we need to forecast how much these settlement values would have increased after September 2001.

We use T&N's historic settlement data to estimate likely future settlement values for mesothelioma claims. By 2001, during its first months after leaving CCR, T&N's average mesothelioma settlement had reached \$138,939 which was 160 percent of its average settlement in 2000 and 318 percent of its settlement in 1997 (Table 4). T&N's settlements for mesothelioma claims would have continued to increase further since its 2001 settlements represent its experience during only the first eight months after leaving CCR and given all of the reasons to expect increases discussed above. We derived a conservative estimate of the likely future rate of increase in T&N's mesothelioma settlements based on the company's past experience and data over the years 1997 through 2001. T&N's data show that T&N's average mesothelioma settlement during 2000 and 2001, \$98,267 (weighted for the number of settlements in each year), was 214 percent of its \$45,974 (weighted) settlement average three years earlier during 1997 and 1998 ($\$98,267 / \$45,974 = 2.14$). We use this as our estimate of the amount by which T&N's mesothelioma settlement values would increase in future years, multiplying this 214 percent rate times \$98,267, T&N's average mesothelioma settlements during 2000 and 2001. We use the product of this calculation, \$210,291 as our estimate of the average value of mesothelioma settlements by T&N for our forecast. This calculation is conservative in two ways: First it calculates the rate of T&N's historic rate of increase not to the \$138,939 that it paid in 2001 but rather to the lower \$98,267 weighted averages of its mesothelioma settlements during 2000 and 2001 period; second, it multiplies this conservative rate of increase times the 2000-2001 average of \$98,267 rather than the \$138,939 that T&N was actually paying after it left CCR.

Table 4: Rates of Increase in T&N Mesothelioma Settlements

Period	SetYr	Average Meso Payment	Percent Changes	
			1-Year	Cumulative
CCR-Yrs	1997	\$43,635	NA	NA
CCR-Yrs	1998	46,608	107%	107%
CCR-Yrs	1999	60,936	131	140
CCR-Yrs	2000	86,606	142	198
Post-CCR	2001	138,939	160	318

Note: Average settlement amounts are expressed in year 2001 dollars.

We then used this conservative \$210,291 estimate of the current settlement value of T&N mesothelioma claims to estimate the settlement values for other diseases, using also data from other asbestos defendants about the relative size of settlements for the various asbestos-related diseases. There are consistent patterns about the relative size of settlements across the various disease that have been used both by experts and courts to understand the values of claims for various diseases. Among all defendants, including T&N, there is a common order to the size of settlements: mesotheliomas are greatest, then lung cancer, other cancers and nonmalignancy claims. In recent years mesothelioma settlements are typically about 20 times the settlement amounts of nonmalignant claims, about 4 times lung cancer settlements and about 10 times settlements for other cancer claims, although these ratios vary somewhat from defendant to

defendant. Table 5 shows ratios for eight defendants, the amounts of mesothelioma settlements relative to settlements for each of the other three disease categories, with all settlements occurring during 1998 to 2000. Table 5 comes from a document that I prepared as an expert for Judges Jack B. Weinstein and Burton Lifland in 2001 hearings involving the Manville Trust's Trust Distribution Procedures. The document is attached to this report as Appendix B.

Table 5: Relative Settlement Averages by Disease,
 As Percentages of Mesothelioma Settlements

Defendant	Lung	Othc	Nonm
B&W	33.6%	19.5%	7.8%
OC	21.5	8.3	3.3
Def 1	28.2	14.1	6.7
Def 2	26.8	13.4	6.4
Def 3	25.1	11.6	5.0
Def 4	20.7	9.0	4.5
Def 5	21.1	9.9	4.5
Def 6	19.2	7.4	3.4

Note: 1998-2000 settlements for eight defendants. From document submitted and entered into the record of Findlay v. Falise, U.S. District Courts for the Eastern and Southern District of NY. Identities for six of 8 defendants are confidential.

We used the ratios from Table 5 for Babcock & Wilcox and Owens Corning to estimate the current T&N settlement values for each asbestos related disease. We used our \$210,291 estimate of the settlement value for mesothelioma claims against T&N and then calculated values for each other disease as a percent of this mesothelioma average. Table 6 shows the resulting estimates of the values for each disease using the ratios for B&W and OC and also shows a third calculation based on the typical ratios discussed above, which are within the ranges shown in Table 5 and represent midpoints across defendants.

Table 6: Estimated T&N Settlement Averages by Disease

Source	Disease			
	Meso	Lung	Othc	Nonm
B&W Basis	\$210,291	\$70,645	\$41,072	\$16,429
OC Basis	210,291	45,261	17,408	6,963
Typical	210,291	52,573	21,091	10,515
Scheduled Values	\$200,000	\$32,000	\$14,750	\$7,000

Note: B&W and OC derived from Table 5. Scheduled Values from Trust Distribution Procedures of the T&N Trust in the proposed plan of reorganization.

Because of its limited history of settlements since leaving CCR, estimates of the amount that T&N would pay now and in the future to resolve asbestos claims for each disease must necessarily be uncertain. We have addressed that uncertainty by deriving conservative estimates of T&N's settlement values that are more likely to underestimate rather than overestimate what

T&N would pay. We have also, as shown in Table 6, calculated reasonable ranges of settlements for lung cancer, other cancer and nonmalignant claims based on the relative amounts paid by other asbestos defendants.

To simplify this report it is helpful to base our estimates of T&N's total asbestos liability on one set of values for each disease. We can then defer the complexities of conducting and comparing multiple alternative estimates of settlement values until our sensitivity analyses, presented in Section 8 of this report. To provide further conservatism for our forecasts, we chose to base the forecasts in this report on the T&N Scheduled Values specified for each disease in the Trust Distribution Procedures (TDP) of the current proposed plan of reorganization, which are shown in the bottom row of Table 6. These scheduled values were established by the proponents of the bankruptcy reorganization pay based on empirical data about T&N's past payments and trends in those payments and consideration of the many matters that affect future trends in values. Based on the empirical data and recommendations that I provided to them, the Asbestos Claimants Committee (ACC) and the other parties to the Proposed Federal Mogul Plan of Reorganization determined that the TDP's Scheduled Values represented the reasonable settlement values for each disease. Prior to their determination of the TDP Scheduled Values, I recommended a \$200,000 mesothelioma Scheduled Value as representing a conservative estimate of the current T&N average values of mesothelioma claims and values for each other disease based on the relative settlement values that T&N had paid historically among diseases. The ACC and other parties accepted my recommendation and the analysis supporting those values. Table 7 shows those Scheduled Values for each of the eight TDP categories.

Table 7: Scheduled TDP Values for T&N U.S. Claims

Category	Disease	Schedule
VIII	Mesothelioma	\$200,000
VII	Lung Cancer	42,500
VI	Lung Cancer (*)	12,000
V	Other Cancer	14,750
IV	Severe Asb/Pleu	42,500
III	Disab Asb/Pleu	12,700
II	Asbest/Pleural	5,700
I	Cash Discount	400

Note: Value for Category VI Lung Cancer is the Average for that category, which has no Scheduled Value under the TDP.

For two categories of diseases, lung cancer and nonmalignancies (asbestos and pleural disease) more than one TDP category might apply to claims. Table 8 shows the TDP scheduled values for each type of disease, with values for lung cancers and nonmalignancies based on estimates of the number of claimants who will likely qualify for each category applicable to that disease.

Table 8: Estimated Settlement Average by Disease

Disease	Schedule
Mesothelioma	\$200,000
Lung Cancer	32,000
Other Cancer	14,750
Nonmalignant	7,000

The settlement averages that we use in our forecasts for this report and the T&N TDP Scheduled Values upon which they were based are conservative estimates that are derived from but less than the values that we obtained from our analysis of T&N's historic settlement data and the settlement histories of other defendants that are described earlier in this section. The values that we use to forecast T&N's liabilities in the U.S. are more likely to underestimate rather than overestimate what T&N would pay in tort litigation to resolve pending and future asbestos bodily injury claims. These estimates are also reasonable when compared to recent settlements among other asbestos defendants (Table 9).

Table 9: Recent Settlements by Other Defendants

Company(ies)	Year	Disease			
		Meso	Lung	Othc	Nonm
Owens Corning	1998	\$159,445	\$36,416	\$15,864	\$10,121
	1999	192,476	49,635	21,839	7,041
	2000	211,304	49,116	15,521	6,699
Four California Distr/Contractors	2000	\$155,938	\$53,310	\$17,296	\$13,933
	2001	223,622	49,707	9,901	16,321
	2002	327,992	135,810	145,601	12,377
Porter Hayden Distr/Contractors	1999	\$178,358	\$55,742	\$10,189	\$4,371
	2000	103,537	20,231	10,609	6,066
	2001	149,008	26,022	11,488	7,665

Note: Average settlement amounts are expressed in year 2001 dollars.

Both for Owens Corning, a target defendant, and even among the five distributors/contractors in Table 9, companies that are regarded as secondary defendants with lesser liabilities, mesothelioma settlements range in most recent years from more than \$150,000 to over \$300,000. Our \$200,000 estimate of the T&N settlement value for mesothelioma is well within the range of actual recent settlements by these six other asbestos defendants. Our estimate of \$32,000 as the current average value of T&N settlements for lung cancers is at the lower end of the \$20,000 to \$130,000 recent lung cancer settlements among these other defendants and less than the amount that would be derived from use of the relative settlement values among other defendants (Table 6). Similarly, our estimates of the average T&N settlement values for other cancers (\$14,750) and nonmalignant claims (\$7,000) are within and at the lower end of the range of recent settlements for those disease claims.

The T&N settlement values that we use for our forecasts and the T&N TDP Scheduled Values are also reasonable in relation to scheduled values that are included in the TDPs of other recent bankruptcy plans. Several courts have approved TDPs for other asbestos defendants since 2001

and parties in other bankruptcy cases have proposed reorganization plans that are awaiting confirmation (Table 10). I participated in the determination and provided supporting quantitative analyses that parties used to derive the Scheduled values for each of the TDPs shown in Table 10 below. In each case the Scheduled Values were selected as representing the bankruptcy parties' estimates of the current settlement averages for the particular defendant.

Table 10: Comparison of Scheduled TDP Values for T&N and Other Defendants

Category	Disease	T&N	Manv	MacCA	MacMN	B&W	AWI	PC	OC	Fibre
VIII	Mesothelioma	\$200.0	\$350.0	\$524.0	\$316.3	\$120.0	\$130.5	\$200.0	\$270.0	\$180.0
VII	Lung Cancer	42.5	95.0	199.2	137.1	45.0	43.8	50.0	50.0	35.0
VI	Lung Cancer (*)	12.0	40.0	199.2	137.1	22.5	15.0	20.0	20.0	12.0
V	Other Cancer	14.8	45.0	21.2	73.8	19.0	21.8	30.0	25.0	15.0
IV	Severe Asb/Pleu	42.5	95.0	51.6	57.2	37.0	44.3	50.0	50.0	30.0
III	Disab Asb/Pleu	12.7	25.0	51.6	57.2	10.0	10.1	12.5	20.0	12.0
II	Asbest/Pleural	5.7	12.0	21.8	30.2	5.0	4.2	6.0	9.0	5.4

Notes: Entries in thousands of dollars. Value for Category VI Lung Cancer is the Average for that category, which has no Scheduled Value under the TDP.

T&N entries in red. The MacArthur TDP has only one category for lung cancers and one category for serious nonmalignancies. Manville (Manv), MacArthur (MacCA and MacMN), Babcock & Wilcox (B&W), and Armstrong (AWI) TDPs have been approved by courts. Pittsburgh Corning (PC), Owens Corning (OC) and Fibreboard (Fibre) TDPs are in reorganization plans that are sub judici.

6.1.5. Estimating the Percent of T&N Claims that Will Be Paid

Just as T&N had resolved some past asbestos claims without payment, some pending and future T&N claimants will not receive payment. In forecasting T&N's liabilities for pending and future claimants we must first estimate what fraction of claims will be closed without payment and then apply the values from Table 8 to the remaining claimants who we forecast will be paid. To estimate the percent of claims that will be closed without payment we look to T&N's resolutions of claims during 2000 and 2001. This period includes the last year in which T&N resolved claims through the CCR and its resolutions during 2001 after it left CCR. Outside of CCR, T&N would likely pay a smaller percent of claimants but would then pay larger amounts to those receiving settlement payments (see discussion in Section 6.1.3 above). As I expected, after leaving CCR T&N made payments in a smaller percent of its resolved claims and our forecasts represent this expectation by including T&N's experience about the percent of claims resolved with payment after leaving CCR.

Table 11 summarizes the parameters we used to forecast the values of pending and future T&N claims. The first column shows the percentages of claims within each disease category that were paid by T&N during 2000 and 2001 which we estimate will apply to its resolutions in the future. We then multiply our estimate of the percent of T&N's resolved claims that will receive payment times the average T&N settlement amount paid when T&N pays its claims in order to calculate T&N's Average Resolution value for each disease. We then adjust the Average Resolution values for inflation, since the TDPs are stated in current dollars while our forecast estimates T&N's U.S. liabilities as of October 1, 2001. We use the adjusted Average Resolution values (the last column in Table 11) to forecast T&N's future tort liabilities in the U.S.

Table 11: Percent of U.S. Resolved Claims Receiving Payment:
 2000-2001 Base Period

Disease	Percent Paid	Averages (2004\$)		Average Resolution (2001\$)
		Settlement	Resolution	
Mesothelioma	86.603	\$200,000	\$173,206	\$163,711
Lung Cancer	91.352	32,000	29,233	27,630
Other Cancer	94.466	14,750	13,934	13,170
Nonmalignant	94.341	7,000	6,604	6,242

Note: The TDP payment schedule is in year 2004 dollars. Payments are adjusted to year 2001 dollars prior to their use.

The next sections of this report apply these claim value parameters to forecast T&N's liability for pending U.S. claims (Section 6.2) and for future U.S. claims (6.3). Section 6.4 summarizes the total value of pending and future T&N claims in the U.S., i.e. the total liability that T&N would have faced in the U.S. to resolve those claims through tort litigation and settlements.

6.2. The Value of Pending T&N Claims in the U.S.

By October 1, 2001 when it filed for bankruptcy protection T&N had received over 380,000 asbestos bodily injury claims in the U.S. Over one third, 134,235 claims, remained pending on T&N's petition date according to T&N's U.S. claims database. Table 12 shows the disease distributions for both pending and resolved claims. The primary difference in disease distributions between pending and resolved claims was the greater number of pending claims whose disease was not reported in the T&N database, which we describe as unspecified ("Unsp") disease claims.

Table 12: October 1, 2001 Pending U.S. Claims

Description	Disease					Total
	Meso	Lung	Othc	Nonm	Unsp	
Number Pending	2,412	4,153	1,251	95,680	30,739	134,235
Number Resolved	9,405	14,755	4,549	212,293	6,077	247,079

6.2.1. Imputation for Unknown Disease Claims

To use information about disease from the T&N database we must address this large number of unspecified disease claims among pending claims. In many U.S. states plaintiffs' law suits need allege only general descriptions of disease, such as "asbestos related disease" or "asbestos lung disease" without alleging a specific type of disease. As a result defendants, including T&N, frequently do not know the specific disease for many claims for some time until the disease is identified through discovery or discussion with the claimant's lawyer. Figure 3 shows that a specific disease is unspecified for almost one fourth of claims filed in the last year, but that the percent of claims with unspecified disease decreases quickly as T&N learned specific diseases among claims filed in earlier years. When T&N resolved asbestos claims, disease remained unknown for only 2.5 percent of resolved claims, claims which were almost always closed without payment. In contrast, a greater percent of T&N's pending claims have unknown disease,

22.9 percent, because those pending claims are primarily recently filed claims where T&N has not yet learned the disease (Table 13).

Figure 3: Percent of Unknown Claims by Filing Year

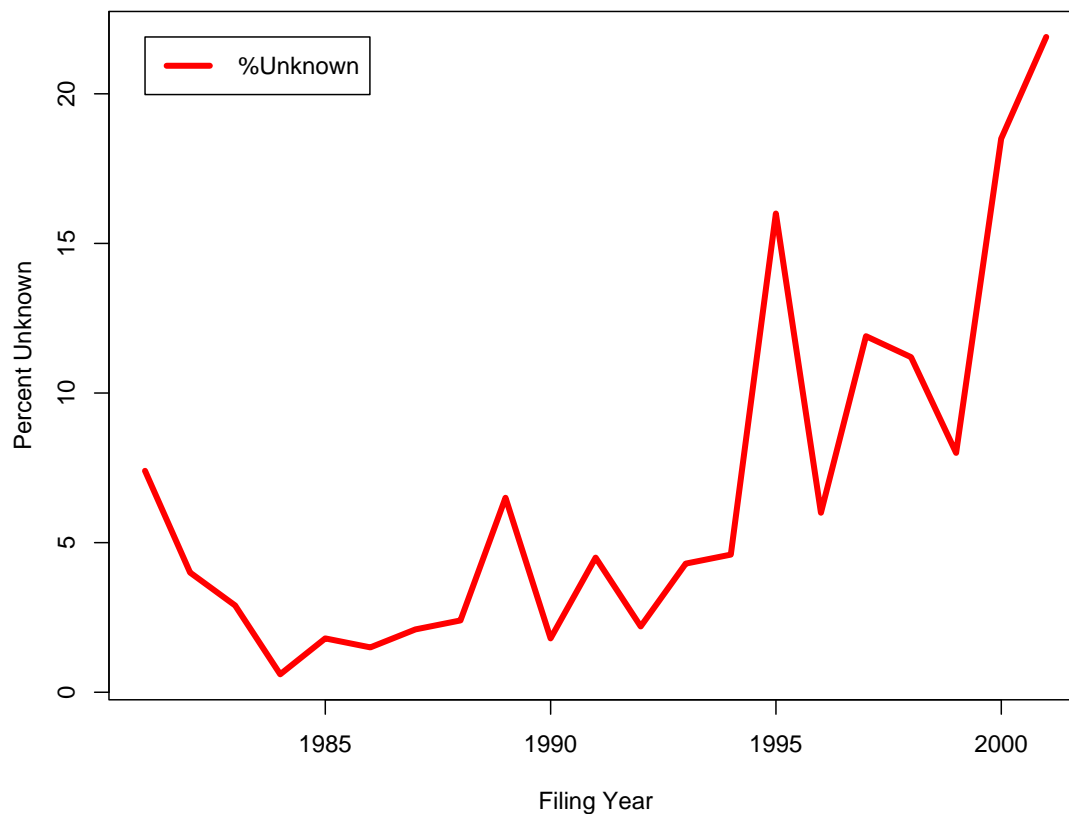


Table 13: Unknowns Are More Frequent Among Pending than Resolved Claims (U.S.)

Claim Status	Percent of Claims					Total
	Meso	Lung	Othc	Nonm	Unsp	
Pending	1.8	3.1	.9	71.3	22.9	134,235
Resolved	3.8	6.0	1.8	85.9	2.5	247,079

While T&N's experience indicates that most of the unspecified diseases in its database would change to specific diseases in time, data in T&N's database did not reflect knowledge that would be gained in the future. Therefore we must estimate how many claims in the T&N database with unspecified disease would come to have a specific disease and what would be the diseases among these now unspecified disease claims.

We used three analytic steps to deal with claims that did not have a specified disease in the CCR database.

- First when disease was unspecified in the CCR database for T&N, we linked T&N data to Manville Trust data based on social security numbers and used Manville's disease information (Manville was the largest producer of asbestos containing products in the U.S. and the bankruptcy trust formed to resolve claims against Manville has received the greatest number of claims in the U.S.). This reduced by half the number of claims without disease information.
- Second, we developed a new transition matrix, which shows the correspondence between diseases as alleged by plaintiffs and diseases as determined by CCR (see Table 14). This matrix was derived from the T&N February 2003 database using two variables: plaintiff's claimed disease and CCR's determination of disease.

Table 14: Transitions from Alleged to Evaluated Diseases (U.S.)

Alleged Disease	Evaluated Disease					Tot
	Meso	Lung	Othc	Nonm	Unsp	
Meso	9,973	116	50	711	437	11,287
Lung	138	13,129	434	2,039	1,345	17,085
Othc	15	103	3,610	948	493	5,169
Asbe	157	404	675	221,189	35,587	258,012
Pleu	22	48	322	24,035	2,403	26,830
Unsp	662	1,190	641	24,459	51,314	78,266

- Third, we observed that, among recent (1998-2001) filings, 3.3 percent of resolved T&N claims lacked disease information and were typically resolved with little or no payment. We assumed that this pattern would continue--that among 1998-2001 open cases, 3.3 percent would be resolved as unspecified disease claims with no payment, and we rescaled the fraction going to "unspecified" disease to accomplish this. The resulting transition matrix is shown in Table 15.

Table 15: Transitions from Alleged to Evaluated Diseases (U.S.)

Claim Status	Alleged Disease	Evaluated Disease Percentage					Total
		Meso	Lung	Othc	Nonm	Unsp	
closed	Meso	100.0	0.0	0.0	0.0	0.0	100
closed	Lung	0.0	100.0	0.0	0.0	0.0	100
closed	Othc	0.0	0.0	100.0	0.0	0.0	100
closed	Asbe	0.0	0.0	0.0	100.0	0.0	100
closed	Pleu	0.0	0.0	0.0	100.0	0.0	100
closed	Unsp	0.0	0.0	0.0	0.0	100.0	100
open	Meso	91.4	1.1	0.5	6.5	0.5	100
open	Lung	0.9	82.5	2.7	12.8	1.0	100
open	Othc	0.3	2.2	76.2	20.0	1.3	100
open	Asbe	0.1	0.2	0.3	97.6	1.8	100
open	Pleu	0.1	0.2	1.3	97.2	1.2	100
open	Unsp	2.2	4.0	2.2	82.8	8.7	100

Thus, We retain the disease classifications in the T&N database for closed claims (hence the 100.0% for each disease) including claims closed with disease classifications of “None” or “Unspecified”, but we transition open claims as shown in Table 15. Note that we are using this transition matrix to transform both unspecified and alleged disease categories to the T&N determined disease category that we use for the forecasts.

6.2.2. Forecasted Indemnity for U.S. Claims Pending on October 1, 2001

Table 16, below, shows the number of pending claims in each disease category after allocation of unspecified disease claims and our estimate of T&N’s expected average resolution cost for each disease (Table 11).

Table 16: Number and Average Value of U.S. Pending Claims

Description	Disease					Total
	Meso	Lung	Othc	Nonm	Unsp	
Realloc Number Pending	3,002	4,891	2,080	119,776	4,487	134,235
Average Resolution	\$163,711	\$27,630	\$13,170	\$6,242	\$0	NA

Notes: After allocation disease claims. Average resolution amounts from Table 11.

We use these numbers and values to complete the formula for deriving the values of pending claims as shown in Table 17. Our forecast of T&N’s liability for the indemnity of U.S. claims pending on October 1, 2010 is \$1.4 billion.

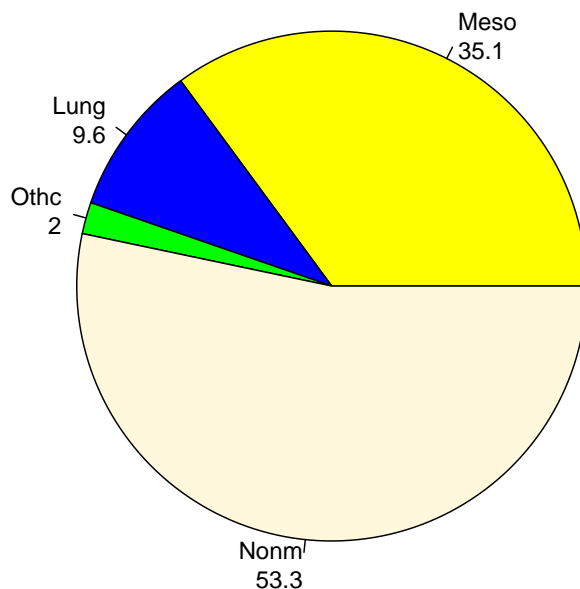
Table 17: Forecast of Indemnity for U.S. Pending Claims

Disease	Number of Reallocated Claims	Average Resolution	Indemnity (\$millions)
Meso	3,002	\$163,711	\$491.5
Lung	4,891	27,630	135.2
Othc	2,080	13,170	27.4
Nonm	119,776	6,242	747.6
Unsp	4,487	0	0.0
Total	134,236	NA	\$1,402

Note: Average resolution amounts and indemnity are expressed in year 2001 dollars. Average resolution amounts from Table 11.

Figure 4 compares graphically the percent of total indemnity that would be paid to claimants with each type of asbestos disease.

Figure 4: Percentage Distribution of Indemnity Amounts for Pending Claims, by Disease



6.3. Projections of Number And Timing of Future Claims in the U.S.

We use standard methods for forecasting future asbestos claims that were first developed for insurance companies in the early 1980s and are now widely used by all types of parties in asbestos litigation. The method calculates the number, timing and types of future claims based

upon the number of people in each future year who develop diseases that are asbestos-related (the incidence of diseases) and the fraction of those people who will pursue claims (the propensity to sue).

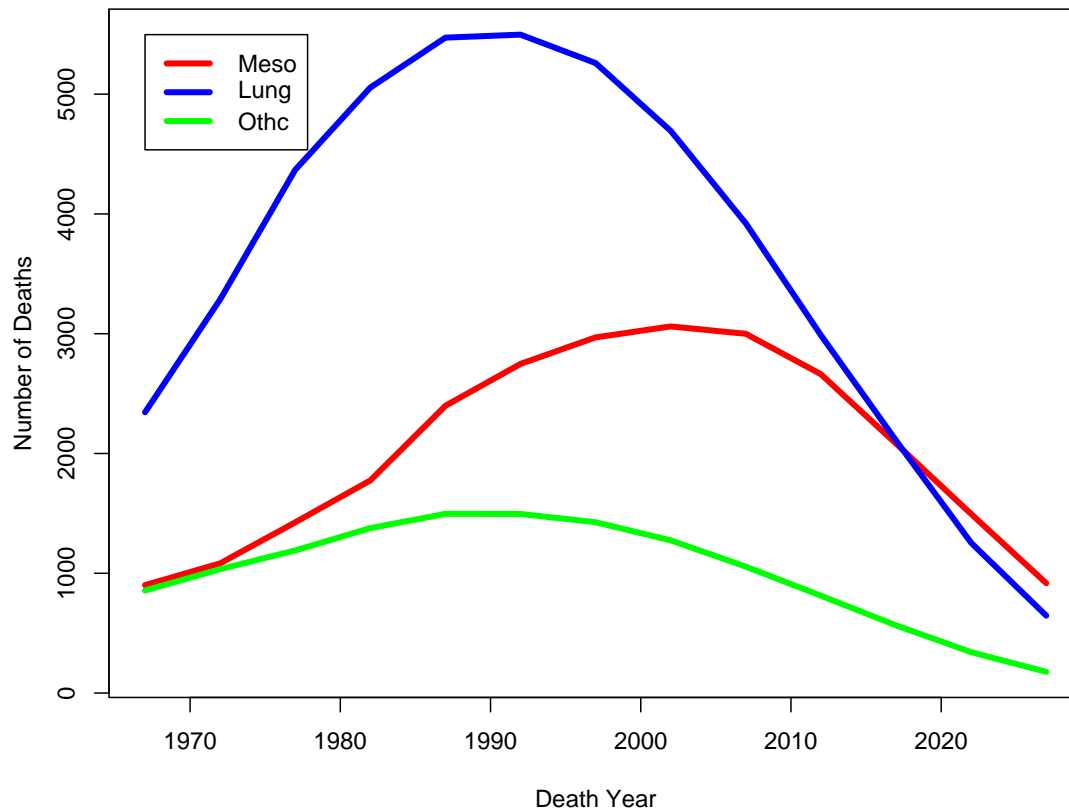
This section describes how forecasts of the incidence of asbestos-related cancer deaths and historic data on the number of cancer claims filed against T&N are used together to calculate the historic propensity to sue T&N for cancer and then to forecast future cancer claims.

6.3.1. The Incidence of Asbestos-Related Cancers

Medical research by epidemiologists provides projections of the incidence of asbestos-related cancers. Projections differ among epidemiologists, but most agree on the relative changes in cancer deaths over time--increasing until late in the twentieth century followed by a slow decrease in the following years. Because of this general agreement on changes over time, projections of future claims will be generally similar even when based on differing projections of incidence.

Figure 5 shows epidemiological projections of the annual number of deaths between 1967 and 2027 from each of three asbestos-related cancers--mesothelioma, lung cancer and other (primarily gastro- intestinal) cancers--among workers exposed before 1980 in major asbestos using industries. The figure represents the results of work by Nicholson, Perkel and Selikoff (1982) which is generally recognized as the most comprehensive and reliable forecast of asbestos-related cancer deaths (Appendix Table A1). The peak year of forecasted deaths differs among the three groups of cancers because the latency periods, i.e. the time from first asbestos exposure to the occurrences of cancer, differ among the three diseases. Because the latency period is longest for mesothelioma, the risk of that disease increases for a longer period and the incidence of mesothelioma peaks later than for other asbestos-related cancers. The patterns of asbestos diseases among exposed workers and, therefore, the patterns of legal claims, have been changing over time with these changes in the relative incidences of each type of cancer. In past years lung cancer has been the most frequent cancer among occupationally exposed workers and the most frequently claimed cancer. However, now and in the future workers will face equivalent risks for mesothelioma and lung cancer.

Figure 5: Nicholson Cancer Projections



6.3.2. Accuracy of Epidemiological Projections

Epidemiologists' projections, like those of Nicholson, et. al., have their own uncertainties, but can be tested by comparing projections for past years with data on mesothelioma deaths in those same years collected by the National Cancer Institute's SEER (Surveillance, Epidemiology and End Results) cancer registry. The SEER program collects comprehensive data on the incidence, treatment and end results (including deaths) for all types of cancers at fourteen different sites in the United States. SEER generates cancer rates from these sites that can then be used to estimate the incidence of each type of cancer for the United States as a whole. The SEER program is highly sophisticated and recognized as the state of the art for such programs throughout the world and its results are widely used in medical research and planning.

Because SEER collects data continually, its results include estimates of the annual national incidence of each type of cancer over many years. The annual SEER estimates of the national incidence of mesothelioma provide a means to test epidemiological forecasts of mesothelioma deaths. Because asbestos is the only known cause of mesothelioma, epidemiologists' forecasts of asbestos-related mesothelioma deaths should tend to correspond to the annual SEER national incidence estimates for all mesotheliomas. While the SEER national incidence measures are themselves estimates based on the sample of SEER sites with their own uncertainties, over many years an accurate epidemiological forecast of mesothelioma deaths should track trends in the SEER estimates of actual mesothelioma deaths.

In fact, as Figure 6 shows, the Nicholson et. al. forecasts correspond remarkably well to SEER estimates of actual mesothelioma deaths. Nicholson and his colleagues published their forecasts in 1982. Since then and through the most recent years of data, the Nicholson forecasts closely

track the SEER estimates of annual mesothelioma deaths.

Because lung cancer and the other asbestos-related cancers have causes other than asbestos exposure, the SEER estimates of those cancer deaths will exceed and cannot be used to test the epidemiological forecasts for those other cancers. But because Nicholson's forecasts for all types of cancers are based on the same methods and the same estimates of the number of exposed workers and the extent of their asbestos exposures, the strong confirmation of Nicholson's forecast for mesothelioma provides confidence for Nicholson's epidemiological forecasts for each type of cancer.

Figure 6: Epidemiological Projections Confirmed by SEER's Mesothelioma Counts

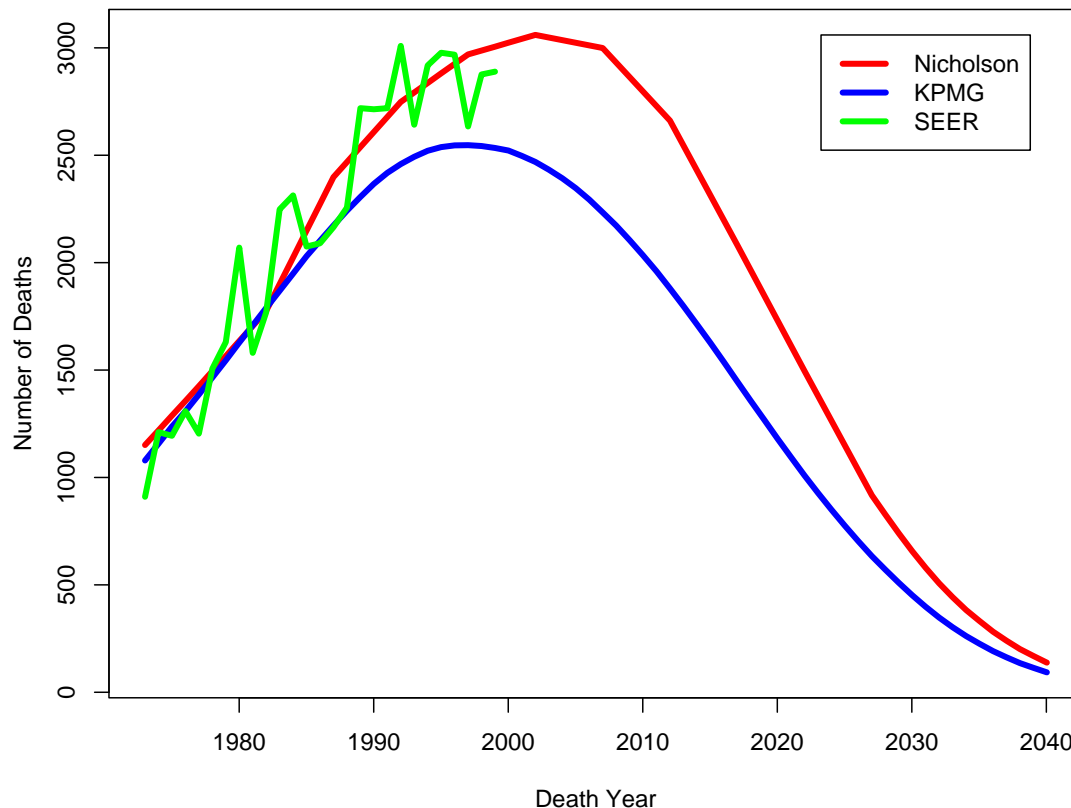


Figure 6 also shows a second forecast of asbestos-related mesothelioma deaths made by analysts at KPMG-Peat Marwick in 1992 as part of their work as experts in the bankruptcy proceedings of National Gypsum. Dr. Tom Vasquez and his colleagues at KPMG-Peat Marwick attempted to update the 1982 forecasts made by Nicholson, et. al., using more recent U.S. Labor Department statistics on the populations of workers in asbestos exposed industries, more recently formulated medical models of the risk of mesothelioma and lung cancer from asbestos exposure and several alternative assumptions (KPMG's annual forecasts are reproduced in Appendix Table A2). As Figure 6 illustrates, the KPMG forecasts are very similar to those made by Nicholson et. al. a decade previously and, as a result, claims forecasts that are based on the two alternative epidemiological forecasts are only slightly different. Figure 6 also shows that between the two, the original Nicholson more closely fits the SEER estimates of actual mesothelioma deaths.

6.3.3. Propensities to Sue T&N in the U.S.

Data and forecasts of the incidence of asbestos-related diseases describe the potential for liability against T&N. As long as asbestos-related cancers occur, it is likely that some claims will be filed. Data on T&N's past claims show how much of this potential for asbestos cancer claims was directed against the company: among all the potential asbestos-related cancer claims in the country what fraction resulted in T&N claims? T&N's claims data also show trends in claiming against the company, whether the level of claiming had increased, decreased or stabilized in recent years.

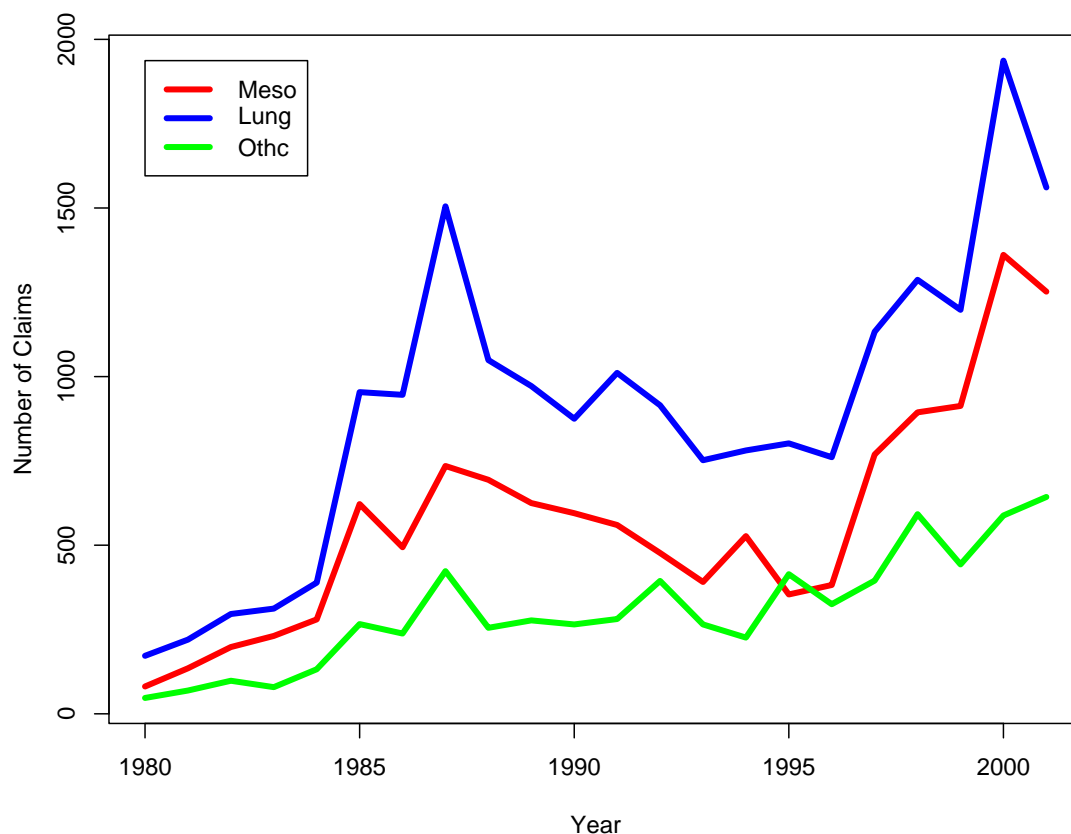
Table 18 shows the annual number of asbestos bodily injury claims filed against T&N for each type of asbestos related disease after the allocation of diseases to unspecified disease, as described above. Like other CCR members, claim filings against T&N were suppressed between 1994 and mid-1997 when the CCR's Georgine class action was sub judici, increased sharply in late 1997 and 1998 after the U.S. Supreme Court's Amchem decision confirmed the Third Circuit's rejection of the Georgine class action. The annual claim filings against T&N then increased even higher in 2000 and 2001 until T&N filed for bankruptcy protection in October 1, 2001. Overall, T&N and other CCR members saw a sharp increase in annual claim filings over the decade of the 1990s. This trend was shared with all major asbestos defendants. Figure 7 provides graphic representations of these increasing trends in T&N filings for each of the three types cancers.

Table 18: U.S. Filings Against T&N, By Filing Year and Disease

Filing Year	Disease					Total
	Meso	Lung	Othc	Nonm	Unsp	
1980	230	379	121	3,953	395	5,079
1981	135	220	69	2,192	144	2,760
1982	198	296	98	3,125	153	3,871
1983	231	312	79	2,788	97	3,507
1984	280	389	132	3,716	29	4,546
1985	622	954	266	9,346	182	11,369
1986	494	946	238	10,224	174	12,076
1987	735	1,505	423	14,135	336	17,134
1988	694	1,049	255	13,727	381	16,106
1989	625	972	277	12,827	926	15,627
1990	595	875	265	12,194	165	14,094
1991	560	1,011	281	12,564	330	14,745
1992	477	915	394	17,485	260	19,531
1993	391	752	265	12,197	485	14,091
1994	527	781	226	9,534	153	11,220
1995	354	802	414	16,166	475	18,211
1996	382	761	325	15,498	240	17,206
1997	769	1,133	395	19,260	484	22,040
1998	894	1,287	592	30,164	854	33,790
1999	913	1,198	443	30,608	889	34,051
2000	1,361	1,937	588	39,597	2,054	45,537
2001	939	1,171	482	40,771	1,359	44,723
[Ann01]	1,252	1,561	643	54,361	1,812	59,631
Total	12,406	19,645	6,628	332,071	10,565	381,314

Notes: Entries for 2001 are filings through October 1, 2001. Annualized filings for 2001 are shown in the “Ann01” row. Totals are based on 2001 filings through October 1.

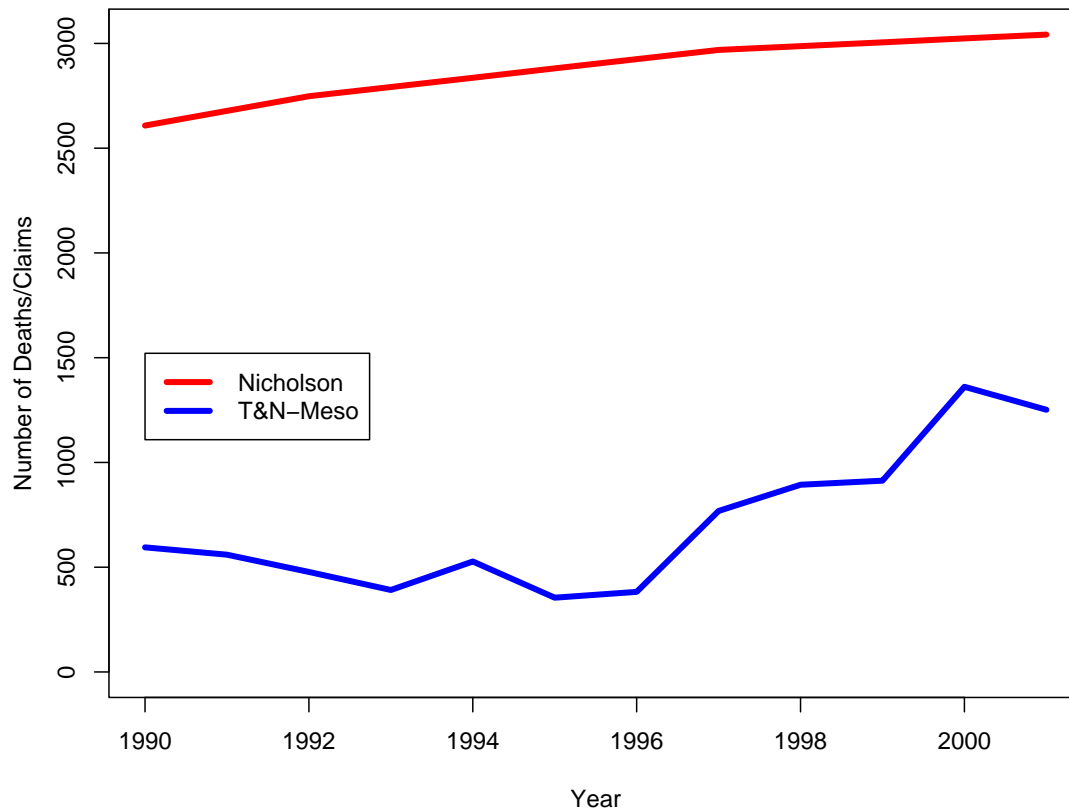
Figure 7: Number of Cancer Filings Against T&N



Note: Entry for 2001 is annualized.

Figure 8 compares Nicholson's forecast of mesothelioma deaths between 1990 and 2001 with the number of mesothelioma claims filed against T&N in those years. Because the epidemiological forecasts are for calendar years, for proper comparison we annualized the number of mesothelioma claims filed against T&N through October 1, 2001 to estimate what would have been the filings for the entire year.

Figure 8: Nicholson Meso Forecasts vs T&N Actuals



Note: Entry for 2001 is annualized.

Forecasts of future mesothelioma claim filings are based on a calculation of the relationship between past claims to the past incidence of the disease. This calculation, known as the “propensity to sue”, is derived by dividing the number of claims for mesothelioma in a year by the number of mesothelioma deaths projected for that same year and establishes the historic claiming rate for mesothelioma against T&N. Propensities to sue T&N for lung cancer and for other cancers are calculated similarly, by dividing the number of claims for each type of cancer in a year by the Nicholson forecast of the number of asbestos-related deaths from that cancer in the same year.

Table 19 below shows the annual propensities to sue calculated for each of the three types of asbestos-related cancers for each year since 1990. From the early 1990s the number of cancer claims filings has increased steadily for most asbestos defendants, but this pattern differed for T&N and other CCR members. Their claim filings were suppressed from 1993 to 1997 by the pendency of the Georgine class action. Many victims of asbestos related cancers delayed filing law suits while the class action was pending in order to avoid the terms of that settlement. In turn, cancer filings against T&N increased sharply during the eighteen months from the summer of 1997 after the U.S. Supreme Court halted the Georgine class action until the end of 1998 as cancer victims who had withheld their claims then filed lawsuits. But then after these sharp increases in 1997 and 1998 cancer claims against T&N, the number of claims continued to increase, demonstrating a stable trend toward greatly increased U.S. claim filings in recent years.

We used T&N’s claims experience during the twenty one month period from January 2000

through September 2001 to forecast future claims that would be filed against T&N after October 1, 2001. This “base period” represents T&N’s most current claims experience, the nearly two years immediately preceding the date of forecast, and a period that is beyond the temporal effects of the Georgine class action litigation. As Table 19 shows, propensities to sue for each type of cancer during the twenty one months of the base period were considerably higher than during the years in which the Georgine class action was sub judici and higher even then filings in 1997 and 1998 when claims deferred because of Georgine were then filed.

Forecasts of future T&N claims must take two matters into account: (1) the most recent level of claiming shown by the propensities to sue during years preceding T&N’s bankruptcy filing and (2) the fact that cancer filings and propensities to sue had increased sharply as of October 1, 2001. Together these matters not only establish a starting point for forecasting future T&N cancer claims based on the most recent propensity to sue, but also suggest that propensities to sue T&N may continue to increase and exceed the levels of the base period.

Table 19: Propensities to Sue T&N, by Disease: 1992-2001 (U.S.)

Filing Year	Type of Cancer		
	Meso	Lung	Othc
1992	17.4	16.6	26.4
1993	14.0	13.8	17.9
1994	18.6	14.5	15.4
1995	12.3	15.0	28.5
1996	13.1	14.3	22.6
1997	25.9	21.5	27.7
1998	29.9	25.0	42.5
1999	30.4	23.8	32.5
2000	45.0	39.4	44.1
2001	41.2	32.5	49.3

Notes: 2001 entries based on three-fourths of that year.

The number of claims forecast for each type of cancer in each future year is derived by multiplying the number of deaths projected by Nicholson for that year by the likely propensity to sue for that cancer. The calculations that are used first to derive propensities to sue and second to forecast future claims based on these propensities to sue are stated below:

Calculation of Propensity to Sue:

$$\frac{\text{Number of Claims}}{\text{Incidence}} = \text{Propensity to Sue}$$

Forecasting Future Claims from Propensity to Sue:

$$\text{Propensity to Sue} * \text{Incidence in Future Year} = \text{Projected Claims in Future Year}$$

We forecast the number of T&N cancer filings for the first future year, the year following its

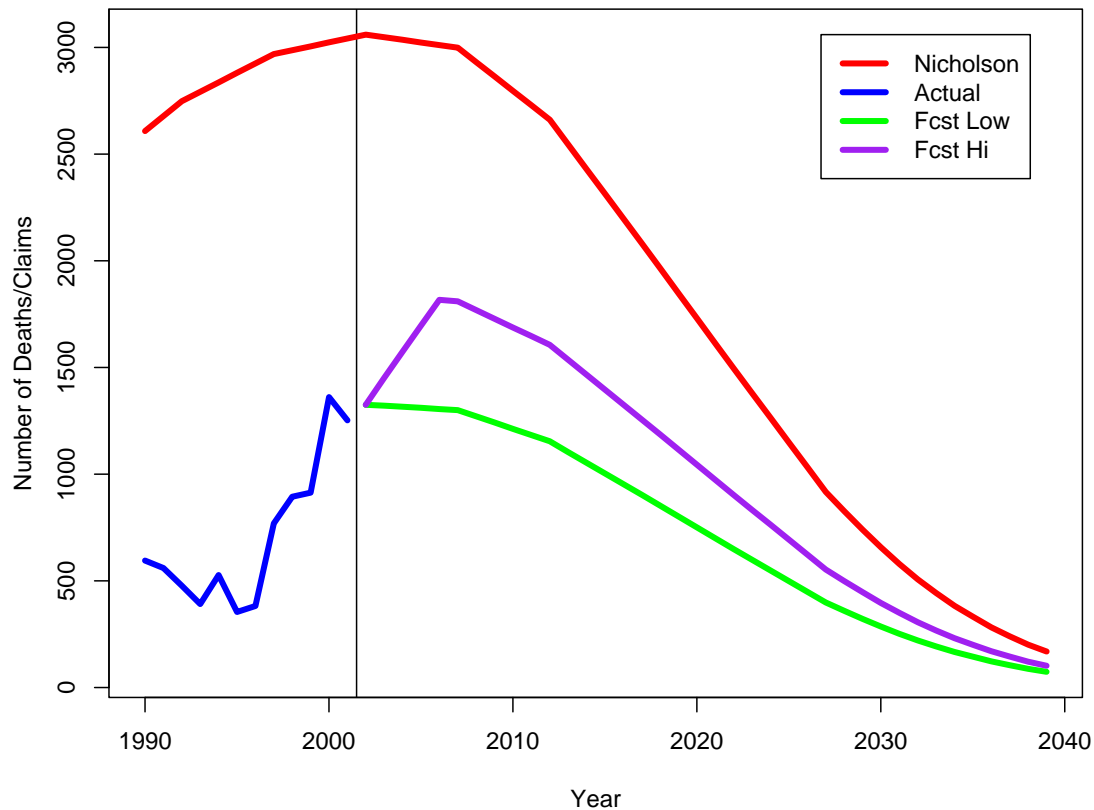
petition for bankruptcy protection, using the propensities to sue from the base period. In other words we assume that the percent of cancer victims who would have filed claims against T&N immediately after its bankruptcy would have been the same as the percent in the two years preceding its bankruptcy.

We have two alternative models about what would happen next:

- One model, the “Increasing” model, assumes that the increase in propensities that we observed in T&N claims prior to the bankruptcy would have continued for five more years and then the propensities to sue would increase no further but would remain for all further years at the level reached in the fifth future year. The rates of increase in the propensity to sue would be the same as rates of increase in those measures observed generally among asbestos defendants during the 1990s. These general rates of increase are considerably less than the actual increase in propensities to sue observed by T&N in the 1990s and result in conservative estimates of the number of future claims.
- The second model, the “No-Increase” model, assumed that propensities to sue in all future years would remain at the levels of T&N’s propensities to sue during the base period.

Figure 9 illustrates the forecast for mesothelioma claims, showing (a) the Nicholson forecast of nationwide mesothelioma deaths for all years from 1990 through 2039 (Nicholson’s forecasts stop in 2030, but we extrapolated them forward through 2039 based on trends for the KPMG epidemiological forecast), (b) annual mesothelioma claims against T&N through 2001 and (c) the two alternative forecasts of future mesothelioma claims through year 2039. Illustrations of forecasts for lung cancer and other cancer claims would be similar to those in Figure 9.

Figure 9: Nicholson Meso Forecasts with Alternative T&N Projections



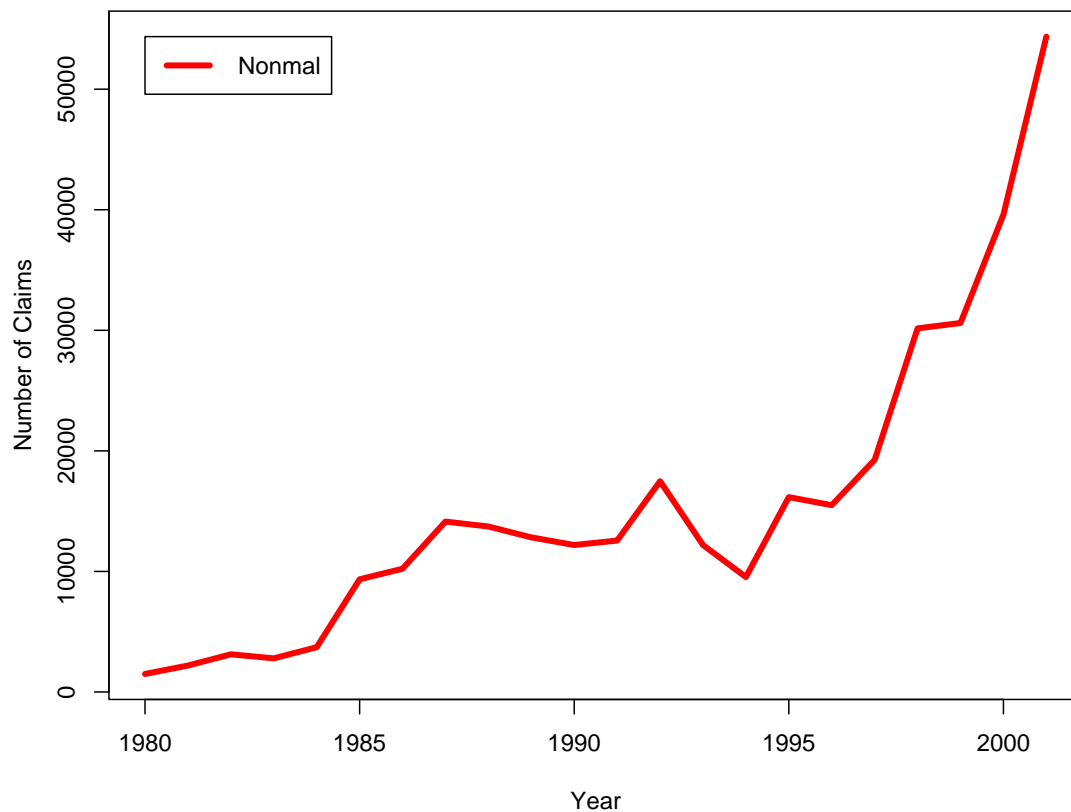
Note: Entry for 2001 is annualized.

6.3.4. Projection of Future Nonmalignancy Claims in the U.S.

The past trend in annual filings of nonmalignant claims against T&N is similar to its trends for cancer claims (Table 18). Like cancer filings, the Georgine class action suppressed filings during the mid-1990s, but nonmalignant filings rebounded greatly after the U.S. Supreme Court ended Georgine in mid-1997 and, as with cancer filings, nonmalignancy filings continued to increase until the time of T&N's bankruptcy. Figure 10 shows annual filings of nonmalignant claims against T&N since 1980.

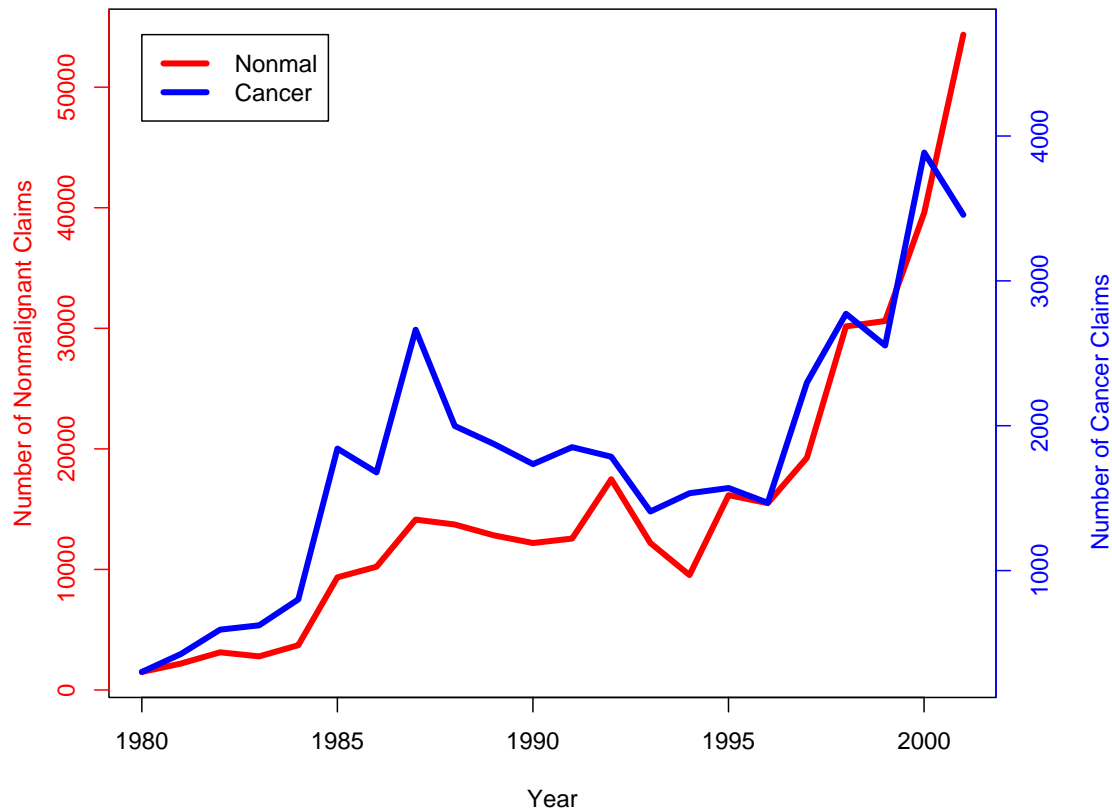
To facilitate comparison of trends in cancer and nonmalignant claim filings, Figure 11 shows annual filings in each year from 1980 through 2000 using different scales for cancer claims and for nonmalignant claims. As Figure 11 demonstrates, throughout twenty years of its asbestos litigation the trends in annual filings of cancer and nonmalignant claims filed against T&N have been similar. While there is some divergence in trends during the 1980s, trends for both types of disease are highly similar since the early 1990s. This correspondence diverged somewhat in 2001 after T&N left the CCR and was considering bankruptcy when a relatively great number of nonmalignant claims were filed.

Figure 10: Annual Nonmalignant Claims



Note: Entry for 2001 is annualized.

Figure 11: Comparison of Nonmalignant and Cancer Claim Counts



Note: Entry for 2001 is annualized.

To forecast the number of asbestosis and pleural claims that will be filed against T&N in future years we do not use the same method that we use to forecast T&N's future cancer claims. First, there are no published, peer-reviewed epidemiological projections for the incidence of nonmalignant asbestos-related diseases that are like the Nicholson cancer forecasts and no epidemiological forecast of nonmalignant asbestos-related disease has been tested and confirmed by actual experience as have the Nicholson cancer forecasts. Second, the disease processes for asbestos related cancers and asbestos related nonmalignant diseases differ. Unlike the asbestos related cancers, which become known to victims abruptly through the rapid onset of symptoms and diagnoses, nonmalignant diseases are insidious. Asbestosis and pleural diseases are progressive diseases that develop gradually over time with the accumulation of scarring of the lungs or pleura. Because dyspnea (shortness of breath) and other effects of these disease increase over time, victims of these diseases may be unaware of the earliest onset of symptoms or may attribute breathing problems to their increasing age or other possible causes. So unlike the asbestos related cancers, which become known to victims by a signal event--the diagnosis of a grave disease--that will be most likely to trigger claim filing, victims of nonmalignant asbestos diseases may become aware of their diseases gradually or they may be made aware by a medical diagnosis of asbestosis or pleural disease that could be made early or later in the progression of the disease. Consequently, filings of claims for asbestosis and pleural disease cannot be predicted from epidemiological evidence in the same manner as can filings of asbestos related cancers.

But in fact claims filing trends for nonmalignant and malignant asbestos related diseases since the early 1990s correspond closely because those filings are generated by similar sets of social,

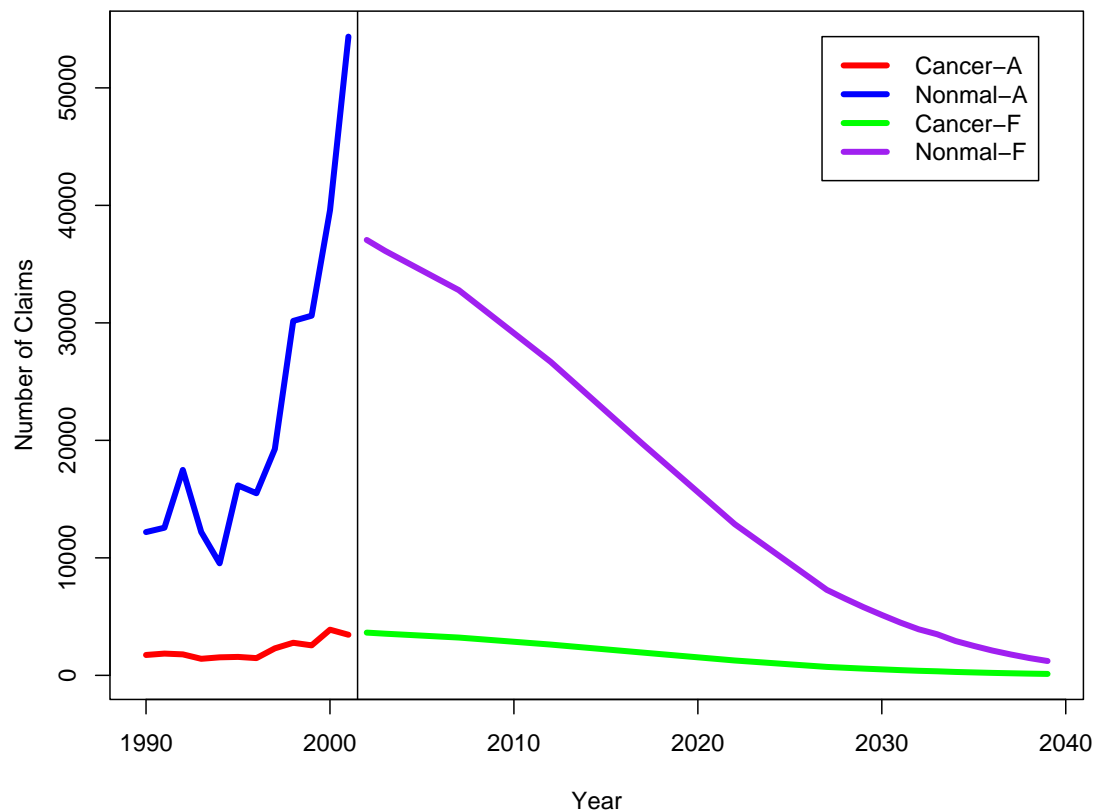
institutional and behavioral determinants. As Figure 11 demonstrates filings of asbestos nonmalignant claims in a year can be predicted well from filings of cancer claims. The correspondence of filings of cancer and nonmalignant claims is one of the most common patterns in asbestos litigation, not only for T&N but for other asbestos defendants as well. We use this consistent relationship between cancer and nonmalignant claims filings to project future nonmalignancy claims based on the historic ratio of nonmalignancy to cancer claims against T&N. We call the ratio of nonmalignant to cancer filings the “nonmalignant multiplier”. In our forecasts for T&N, we calculate the nonmalignant multiplier during the single year 2000 calculating the ratio of nonmalignant claim filings to cancer claim filings during that year. This ratio, 10.19 nonmalignancy claims filed for every cancer claim, was similar to the ratios in the two prior years (in order to achieve conservative forecasts, we do not include the ratio from 2001, which was 50 percent greater than the year 2000 ratio). We then estimate the number of nonmalignancy claims that will be filed in a future year by multiplying our projection of cancer claims for that year by the nonmalignant multiplier or ratio of nonmalignant to cancer claims.

Again the projection for the first year after T&N’s bankruptcy starts with an assumption that the ratio of filings between nonmalignancy and cancer claims will continue to be the same as during the year 2000 base period. Historically during the base period the number of nonmalignancy claims filed against T&N has been approximately ten times as many as cancer filings. This means that initially nonmalignancy claims will be about ten times the number of cancer claims, i.e. 91 percent of all filings.

We then use two alternative assumptions about how this ratio of nonmalignancy cancer claims will change over time, assumptions that correspond to our two alternative assumptions about future changes in propensities to sue for cancer. The “Increasing” assumption, which is used together with the “Increasing” model of propensities to sue for cancers, assumes that the ratio of nonmalignancy to cancer claims will increase slightly over the next five years and by the end of five years will be about 11% greater than the ratio during the base period. Thereafter, the ratio of nonmalignancy to cancer claims will remain unchanged. This 11% increase represents the general experience among asbestos defendants during the 1990s and was calculated from the actual filing experience of the Manville Trust and the UNR Trust. The second, “No-Increase” assumption, which accompanies the “No-Increase” model of propensities to sue for cancers, assumes that the ratio of nonmalignant to cancer claims observed during the base period will remain unchanged in all future years.

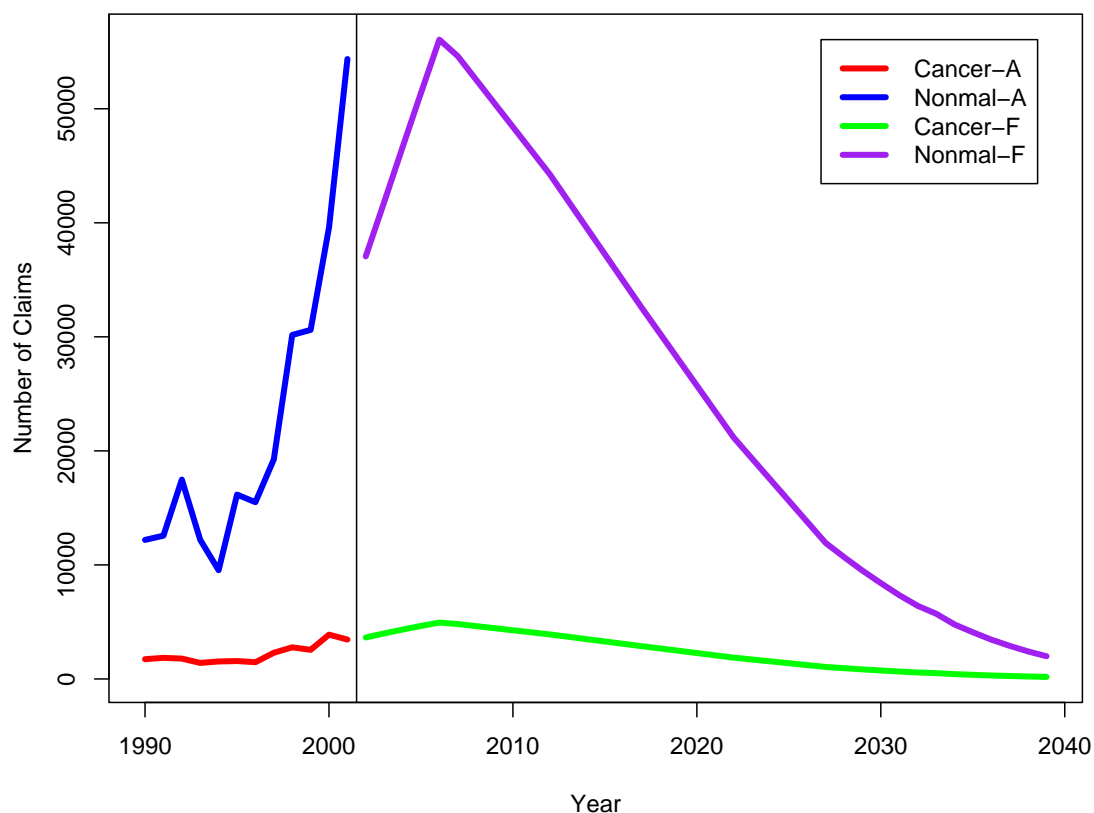
Figure 12 and Figure 13 illustrate these alternative models of future nonmalignant claims. Both figures show the number of claims filed against T&N annually prior to the bankruptcy separately for cancer and nonmalignant claims: cancer claims appear at the bottom and nonmalignant claims appear above. Figure 12 shows the “No-Increase” model, with no future increase in either the propensity to sue or the nonmalignant multiplier. Figure 13 shows the “Increasing model,” with increases between 2002 and 2005 in the cancer propensities to sue and the nonmalignant multiplier.

Figure 12: Actual And Projected Filings--No Increase



Note: Entry for 2001 is annualized.

Figure 13: Actual And Projected Filings--Increasing



Note: Entry for 2001 is annualized.

6.3.5. Forecasted Number of Future Claims

Table 20 shows the results of the forecasts for each of the two models, the “No-Increase” and “Increasing” models. Appendix Table A3 shows the forecasted filings for each disease for each year from 2002 to 2039.

Table 20: Number of Forecasted Claims Filed After October 1, 2001 (U.S.)

Model	Disease				Total
	Meso	Lung	Othc	Nonm	
No-Increase	27,850	26,304	9,027	643,598	706,779
Increasing	37,339	36,951	14,918	999,232	1,088,440

6.4. Estimating Liability for Forecasted Future Claims in the U.S.

To value future claims we used our forecasts of the future average resolution costs for T&N obtained by multiplying the forecasted settlement averages shown in Table 7 times the percent of claims that will receive payment shown in Table 11. I discussed the derivation of these parameters in Section 6.1.4 above.

In forecasting the values of future claims, we also assumed that payments would be adjusted for future inflation at a rate of 2.5 percent per year. This rate was obtained from the forecasts of the Congressional Budget Office. Table 21 shows the value of future claims based on each of our two alternative assumptions about the rate of future filed claims, using the average resolution values derived from Table 11.

Table 21: Forecast Indemnity for Future Claims after October 1, 2001 (U.S.)

Model	Disease				Total
	Meso	Lung	Othc	Nonm	
No-Increase	\$6,714	\$1,015	\$166	\$5,748	\$13,644
Increasing	9,089	1,445	280	9,051	19,864

Notes: Millions of nominal dollars in years paid. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5%.

The results in Table 21 estimate the value that we forecast for future claims in terms of the dollars of the year when claims are allowed. These represent the real values, the actual amounts of the settlements forecast for each future year. However, these do not represent the present value of T&N's liabilities. Table 22 shows the estimated present value of these liabilities, based on a discount rate of 5.02% which was provided to me by L. Tersigni Consulting, financial experts for the ACC.

Table 22: Present Value (PV) of Future Claims as of October 1, 2001 (U.S.)

Model	Disease				Total
	Meso	Lung	Othc	Nonm	
No-Increase	\$3,259	\$543	\$89	\$2,944	\$6,835
Increasing	\$4,324	\$753	\$144	\$4,503	\$9,724

Notes: Millions of year 2001 dollars. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5%. Discount rate is 5.02%.

6.5. Forecasted Total Liability for T&N's U.S. claims

Table 23 and Table 24 show our forecast of the value of pending and future asbestos bodily injury claims against T&N in the U.S. We present these results only for our future increase model, which is my preferred model, both because it best represents the continuation of trends in T&N's claim filings that had proceeded its bankruptcy filings (Figure 1), and also because of the developments discussed in Section 6.1. of this report that would have increased both the number and values of asbestos claims against T&N. Table 23 shows these liabilities in nominal dollars of the day when T&N will pay each claim: the sum of what T&N would have to pay each year to resolve pending and future claims were T&N to continue to resolve these claims through settlement and trials in the tort litigation system. Table 24 shows the present value of these payment, assuming a 5.02 percent discount rate.

Table 23: The Total Value of Pending and Future U.S. Claims Against T&N

Claims	Disease				Total
	Meso	Lung	Othc	Nonm	
Pending	\$510	\$140	\$28	\$776	\$1,455
Future	9,088	1,445	279	9,051	19,864
All Claims	\$9,598	\$1,585	\$307	\$9,827	\$21,319

Notes: Millions of nominal dollars in years paid. Future claims for Increasing model. Pending claims are assumed to average 1.5 years to settlement. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5%.

Table 24: The Present Value of Pending and Future U.S. Claims Against T&N

Claims	Disease				Total
	Meso	Lung	Othc	Nonm	
Pending	\$474	\$130	\$26	\$721	\$1,352
Future	4,324	753	144	4,503	9,724
All Claims	\$4,798	\$883	\$170	\$5,224	\$11,076

Notes: Millions of year 2001 dollars. Future claims for Increasing model. Pending claims are assumed to average 1.5 years to settlement. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5%. Discount rate is 5.02%.

Figure 14 shows how the present values of T&N's obligations are distributed among the different types of diseases for the future increase model, which is the preferred future forecast model.

Figure 14: Percentage Distribution of PV of Total Liability, by Disease:
Future Increasing Model

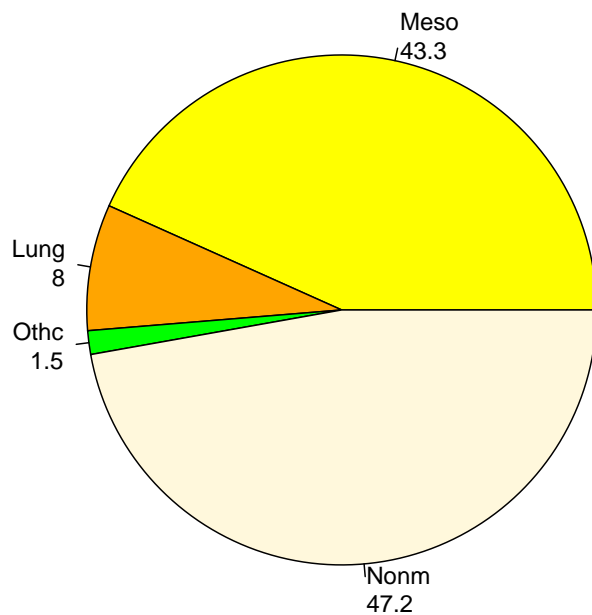
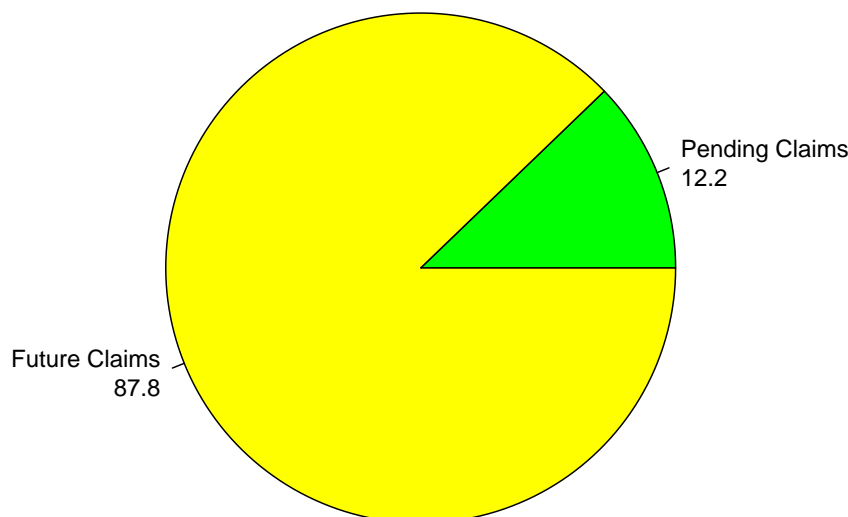


Figure 15 shows how the present values of T&N's obligations are distributed among indemnity for pending claims and indemnity for future claims.

Figure 15: Percentage Distribution of PV-Liabilities by Expense Type:
 Future Increasing Model



7. Forecasted Tort Liability for U.K. Claims

T&N's asbestos liabilities in the U.K. are very different from its U.S. liabilities. U.K. asbestos litigation is at a far lower scale. While U.S. claims against T&N have grown to forty and fifty thousand a year, T&N has never received more than 740 U.K. claims in any year. Across all years T&N had received far fewer asbestos claims in the U.K. than in the U.S., 5,995 through claims filed into 2001 compared to the 380,000 claims in the U.S. filed by approximately the same time. As in the U.S., T&N paid substantial settlement amounts to resolve asbestos claims in the U.K. (Table 25), but its overall liability in the U.K. was a small fraction of its liability in the U.S. primarily because it faced far fewer claims.

Moreover, unlike in the U.S., in the U.K. T&N was not facing deteriorating trends of far greater claim filings and sharply increasing settlement averages. Cancer filings in the U.K. against T&N have been growing in recent years, but this growth is slower, simply keeping pace with the trends in the incidence of asbestos-related cancers. Epidemiological studies indicate that asbestos related cancer deaths continue to increase in the U.K. while they are now dropping in the U.S., because U.K. workers continued to be exposed to high levels of asbestos for a decade or more longer than in the U.S. Finally, T&N's data do not show any trends toward increasing settlement values, which vary markedly from year to year in the U.K. but have no temporal pattern.

These differences between the two countries do not affect our use of the general forecasting model, which is appropriate to each country. While our forecasts of T&N's tort liability for

asbestos claims in the U.K. closely follow the methods used to forecast tort liabilities for U.S. claims, we made two modifications reflecting differences in the asbestos industries between the two countries. First, T&N's domination of the asbestos industry in the U.K. led us to make two separate forecasts of its liabilities in that country. T&N dominated the manufacture and sales of asbestos products in the U.K. and has been the primary focus of asbestos litigation, in contrast to the U.S. where T&N had a lesser share both of sales and law suits. Because of this dominance in the U.K., we separated and made distinct forecasts for T&N's U.K. claims between "T&N Only" claims where it was the sole defendant sued by a claimant and "Shared Liability" claims where T&N joined others as defendants. Second we have adapted the epidemiological models used in our U.S. forecast to reflect the later asbestos exposures in the U.K. In addition differences between the U.K. and U.S. databases led to differences in data management and other technical issues in processing the two databases, but differences between the two data bases did not impact the underlying analyses.

7.1. Distributions of T&N's Share of Liability

In the U.S., many different companies made, sold or installed asbestos products and asbestos plaintiffs typically sue many different defendants. Because T&N was usually sued as one of many defendants in the U.S., it shared indemnity with many others and paid only a fraction of the overall liability. In contrast, T&N's U.K. database shows that it paid a much greater percent of the overall indemnity for claims in that country. According to the database, in 3 out of every 8 settled U.K. claims T&N paid 100 percent or nearly 100 percent of overall indemnity. T&N's liability for the remaining U.K. claims was almost always much less, centering around 30 to 40 percent. Because T&N paid more in the U.K. to resolve claims where its share of liability was at or near 100 percent than in claims where its share of liability was less (Table 25 and Table 26), we make separate forecasts for claims where T&N bore 90 percent or more of the total share of liability ("T&N Only" claims) and for claims where T&N had lesser shares of liability ("Shared Liability" claims). These separate forecasts of T&N U.K. claims provide more precision for our forecasts.

7.2. Estimation of Values for Each Disease

We find no systematic empirical evidence of recent changes in U.K. asbestos settlement values. T&N's U.K. data show neither increasing nor decreasing trends in settlements over the last six years of available data (Table 25). In contrast to the U.S., we assume that the amount paid by T&N to resolve asbestos claims in recent past years would likely also apply in the future.

Table 25: Trends in T&N U.K. Settlement Averages

TN-Level	Set-Year	Meso	Othc	Asbe	Pleu
Shared Liab	1995	£26,168	£20,783	£13,106	£3,721
Shared Liab	1996	29,591	10,576	19,328	3,922
Shared Liab	1997	25,147	37,829	11,202	3,759
Shared Liab	1998	23,804	17,363	11,908	4,362
Shared Liab	1999	28,341	22,934	13,574	4,903
Shared Liab	2000	32,522	17,413	12,740	6,206
Shared Liab	2001	36,212	23,250	9,180	3,959
T&N Only	1995	£58,880	£48,124	£30,639	£7,908
T&N Only	1996	105,653	51,174	40,915	10,742
T&N Only	1997	52,377	44,738	27,168	8,845
T&N Only	1998	63,149	57,330	34,547	7,180
T&N Only	1999	78,418	35,750	32,888	7,707
T&N Only	2000	70,186	38,943	48,308	9,993
T&N Only	2001	72,240	68,549	27,596	8,680

We use 1998-2001 U.K. settlements as the empirical basis for our forecasts of what would be T&N's tort liability for pending and future asbestos claims in the U.K. (Table 26). We value these claims using T&N's past average cost to resolve U.K. asbestos claims (Average Resolution) during 1998-2001 and assume that these values will increase annually at rates equal to projected general monetary inflation in the U.K. according to Eurostat. As shown in Table 26, we separately calculate T&N's average cost to resolve claims for each disease among its "T&N Only" claims and among its "Shared Liability" claims. The Average Resolution is calculated as the average paid to all claimants including those who received no compensation and is the same as the percent of resolved claims that T&N closed with payment (Percent Paid) times the average amount paid to those claimants who received payment (Average Settlements, as shown in Table 25, above). In using T&N's historic Average Resolution for our tort forecasts we assume that the same percent of claims would be closed without payment in future years as in the past.

Table 26: Forecasted Average Tort Resolution Value for U.K. Claims:
1998-2001 Base Period

TN-Level	Disease	Average Settlement	Percent Paid	Average Resolution
Shared Liab	Mesothelioma	£27,950	89.384	£24,983
Shared Liab	Other Cancer	18,729	92.593	17,342
Shared Liab	Asbestosis	12,357	94.703	11,702
Shared Liab	Pleural Disease	5,063	94.881	4,804
T&N Only	Mesothelioma	£70,799	90.173	£63,842
T&N Only	Other Cancer	49,174	73.077	35,935
T&N Only	Asbestosis	37,119	81.988	30,433
T&N Only	Pleural Disease	8,625	89.308	7,703

7.3. The Value of Pending T&N Claims in the U.K.

Most claims filed against T&N in the U.K. have been resolved. Only 17 percent of T&N Only claims (370 out of 2,247 total filings) and 8 percent of Shared Liability claims (286 out of 3,748

total filings) remained pending at the time our database for U.K. claims was extracted, much lower than the third of claims pending in the U.S. at the time Federal Mogul filed bankruptcy. Table 27 shows the number of pending and resolved claims in each disease category both for T&N Only and Shared Liability claims.

Table 27: Pending U.K. Claims, 2001

TN-Level	Description	Disease					Total
		Meso	Othc	Asbe	Pleu	Unsp	
Shared Liab	Number Pending	88	5	54	120	19	286
Shared Liab	Number Resolved	738	252	1,258	1,088	126	3,462
T&N Only	Number Pending	78	12	51	144	85	370
T&N Only	Number Resolved	499	189	674	475	40	1,877

Table 28 compares the percentage distributions of disease among these groups. Among resolved claims, a greater percentage of T&N Only claims are for cancer than among Shared Liability claims. In contrast, among pending claims a relatively large fraction of Shared Liability claims are for mesothelioma, 30.8 percent. Otherwise the primary difference in disease distributions for pending claims was the greater number of unspecified disease claims among the T&N Only claims, 23.0 percent compared to 6.6 percent among Shared Liability claims.

Table 28: Disease Distributions for U.K. Claims

TN-Level	Claim Status	Percent of Claims				Unsp
		Meso	Othc	Asbe	Pleu	
Shared Liab	Pending	30.8	1.7	18.9	42.0	6.6
T&N Only	Pending	21.1	3.2	13.8	38.9	23.0
Shared Liab	Resolved	21.3	7.3	36.3	31.4	3.6
T&N Only	Resolved	26.6	10.1	35.9	25.3	2.1

7.3.1. Imputation for Unknown Disease Claims

For relatively few pending Shared Liability claims, only 6.6 percent, disease was unreported in the T&N U.K. database (“unknown” disease). Among pending T&N Only claims disease was unspecified for 23 percent, the same percentage among pending U.S. claimants. We did not have data to distribute these U.K. unspecified disease claims as we did for U.S. claims, so we used the simpler but standard proportional allocation method to impute diseases for these claims, assumed that actual diseases among pending unknown claims have the same distribution as diseases when known. For two reasons this proportional allocation method probably modestly overestimates U.K. liabilities: first although about 3 percent of U.K. claims are resolved for no payment as claims where disease is still unspecified, we assume that no pending claims will remain unspecified; second, although it is likely that cancer claims represent a lower percentages of unknown disease claims than claims where disease is known, we assume the same percentage distribution. Because U.K. claims constitute a small part of T&N’s asbestos, use of the proportional allocation method has a trivial effect on our forecasts of T&N’s asbestos liabilities across the two countries, but it does slightly raise the U.K. share of the liability relative to the

U.S. liability.

7.3.2. Forecasted Indemnity for U.K. Claims Pending on January 1, 2002

Table 29, below, shows the number of pending claims in each disease category after allocation of unknown disease claims and our estimate of T&N's expected average resolution cost for each disease. Values are in pounds sterling. For each disease, claim values are considerably greater among T&N Only claims than among Shared Liability claims.

Table 29: Number and Average Value of Pending Claims in the U.K.

TN-Level	Description	Disease				Total
		Meso	Othc	Asbe	Pleu	
Shared Liab	Realloc Number Pending	92	6	61	126	286
Shared Liab	Average Resolution	£24,982	£17,342	£11,702	£4,804	NA
T&N Only	Realloc Number Pending	101	20	80	169	370
T&N Only	Average Resolution	£63,842	£35,935	£30,433	£7,703	NA

Notes: After allocation of unknown disease claims. Average resolution amounts are expressed in year 2001 pounds and calculated across claims resolved 1998-2001 (both with and without payment).

We use these numbers and values to complete the formula for deriving the values of pending claims as shown in Table 30. T&N's liability for the indemnity of U.K. claims pending on January 1, 2002 was £14.5 million, £3.7 million for Shared Liability claims and £10.8 million for T&N Only claims.

Table 30: Forecast of Indemnity for Pending Claims in the U.K.

TN-Level	Disease	Number of Reallocated Claims	Average Resolution	Indemnity (£millions)
Shared Liab	Meso	£92	£24,982	£2.3
Shared Liab	Othc	6	17,342	0.1
Shared Liab	Asbe	61	11,702	0.7
Shared Liab	Pleu	126	4,804	0.6
Shared Liab	Total	£285	NA	£3.7
T&N Only	Meso	£101	£63,842	£6.4
T&N Only	Othc	20	35,935	0.7
T&N Only	Asbe	80	30,433	2.4
T&N Only	Pleu	169	7,703	1.3
T&N Only	Total	£370	NA	£10.8

Note: Average resolution amounts and indemnity are expressed in year 2001 pounds. Average resolution amounts are calculated across claims resolved 1998-2001 (both with and without payment).

7.4. Projections of Number And Timing of Future Claims in the U.K.

As with our U.S. forecasts the number, timing and types of future claims will depend upon the number of people in each future year who develop diseases that are asbestos-related (the incidence of diseases) and the fraction of those people who will pursue claims (the propensity to sue).

7.4.1. The Incidence of Asbestos-Related Cancers

We use the same methods to forecast future asbestos claims in the U.K. as we did in the U.S., including use of the Nicholson epidemiological model. Although there have been recent epidemiological forecasts of future mesothelioma deaths in the U.K. (Mesothelioma Mortality in Great Britain: Estimating the Future Burden. National Statistics, Health and Safety Executive, December 2003, referred to as the "HSE" study), for six reasons we used the Nicholson U.S. incidence curves to estimate the shapes of the incidence curves for asbestos-related cancers in the U.K. First, the HSE report provides forecasts only for mesothelioma and none for lung and other cancers. Nicholson provides forecasts for all three groups of cancer. Second, the HSE report does not provide precise annual forecasts of mesothelioma deaths but rather displays these as a curve from which we would have to infer precise forecasts. Nicholson provides precise forecasts for five year groups which we have converted to annual forecasts. Third, the Nicholson forecasts are based on a far richer set of data and analyses about labor and demographic statistics and epidemiological formula of probabilities of asbestos related comparison in contrast to the HSE forecasts which fit models to limited data provided to the U.K. cancer registry. Fourth, while sufficient time has not passed since publication of the recent HSE Study to allow testing of its forecasts, Nicholson's annual forecasts of mesothelioma incidence has been tested and confirmed with data collected by the U.S. National Cancer Institute for seventeen years. Fifth, the changes over time, i.e. the shapes of the curves describing cancer death, will likely be generally similar in the two countries since parameters that determine the number of cancer deaths -- the underlying medical models, the occupations and nature of exposures, and ages and other demographic characteristics of exposed workers -- will likely be similar in each country. Sixth, even if the precise curves were to differ between the countries, the forecasts will be relatively insensitive to such differences so long as we capture the approximate differences in the timing of peaks in each country.

If asbestos exposures had occurred over the same periods of time in each country, we would expect that the annual incidence curves of asbestos related cancers would be similar in each country, i.e they would be somewhat parallel curves that rise, peak and drop off in approximately the same years in each country. Because more people were exposed in the U.S., the incidence curves for that country would be greater, but the timing of disease incidence--the shape of the curves--would be similar. So long as the curves in each country had similar shapes, were approximately parallel, we would get the similar forecasts of future claims if we used the incidence curve developed for U.S. incidence as we would if we had an incidence curve for the U.K.

If, for example, the U.S. curves for incidences of asbestos related cancer deaths were 2 times higher in each year than the U.K. curves, by using the U.S. incidence curves to forecast U.K. claims we would get propensities to sue that were one half the propensities that would have been derived from using U.K. incidence curves. Hypothetically, if there were 200 mesothelioma claims against T&N in the U.K. in a year and there were 1,000 mesothelioma deaths in the U.K. in that year we would have a propensity to sue of .2 (200/1,000). If instead we had calculated propensities to sue using the U.S. incidence curve from Nicholson which, hypothetically, forecast 2,000 mesothelioma deaths, twice the actual U.K. deaths for that year, we would calculate a propensity to sue that is half as large or .1 (200/2,000). But to forecast U.K. mesothelioma

claims in each future year we would multiply the .1 propensity to sue obtained from using the Nicholson model, that is one-half the actual propensity to sue for the U.K., times Nicholson's incidence curve in the future year which forecasts twice as many mesotheliomas in the U.K. as will actually occur. By multiplying the Nicholson-based propensities to sue that are half the U.K.-based propensities times Nicholson's future incidence that are twice the U.K.-forecasted incidence, these two sources of divergence cancel out and we get the same result as if we had used the U.K. incidence curves.

In short, even though the number of exposed persons and the incidence curves are greater in the U.S., so long as the incidence curves have the same shape in each country, which is likely because the determinants of the incidence of asbestos related cancers are approximately similar in the two countries, use of the U.S. incidence curve will produce forecasts of future claims appropriate for the U.K. But this will be so only if the timing of exposures were similar in the two countries, which seems not to be so. Heavy exposures began in the U.S. during World War II with construction of military vessels and war time industrial expansion. Most heavy exposures ended by the early 1980s with increasing workplace regulations. The reduction of asbestos exposures in the U.K. was later than the U.S. timing and, as a result, the HSE forecasts a peak in the U.K. mesothelioma incidence after 2010 about ten years later than Nicholson's forecasted peak in the U.S.

To address this difference in timing, in forecasting future U.K. claims we offset the Nicholson peak by ten years, assuming that the incidence forecast by Nicholson for 2005 in the U.S. would be applicable to the incidence of mesothelioma in the U.K. in 2015. When we offset the Nicholson mesothelioma incidence curve by 10 years we see that it approximately parallels the HSE Study's mesothelioma incidence curve for the U.K. EMB, experts for the U.K. Administrators have confirmed this parallelism between Nicholson and the HSE Study.

7.4.2. Propensities to Sue T&N in the U.K.

Table 31 shows the annual number of asbestos bodily injury claims filed against T&N for each type of asbestos related disease after the allocation of diseases to unknown disease claims, as described above. Annual filings of Shared Liability claims increased slowly, then jumped markedly in 1998 and have remained at about the 1998 level. Annual filings of T&N-Only claims have increased more slowly without the sharp increase in 1998 and always trailed filings for Shared Liability claims. The T&N database shows that most 2001 filings were T&N Only claims, but this is primarily because of the sharp fall in Shared Liability filings in 2001.

Table 31: Number of U.K. Filings Against T&N, By Filing Year and Disease

TN-Level	Filing Year	Disease				Total
		Meso	Othc	Asbe	Pleu	
Shared Liab	1984-	78	96	375	34	586
Shared Liab	1985	20	13	46	8	87
Shared Liab	1986	18	8	39	11	77
Shared Liab	1987	9	14	51	11	85
Shared Liab	1988	18	14	47	11	90
Shared Liab	1989	15	18	45	12	90
Shared Liab	1990	24	5	40	22	91
Shared Liab	1991	23	6	30	28	87
Shared Liab	1992	16	7	49	26	97
Shared Liab	1993	23	15	56	55	148
Shared Liab	1994	35	8	39	49	131
Shared Liab	1995	37	3	46	48	135
Shared Liab	1996	52	11	50	91	204
Shared Liab	1997	56	8	26	78	168
Shared Liab	1998	159	10	182	260	611
Shared Liab	1999	130	11	91	201	433
Shared Liab	2000	108	15	135	260	518
Shared Liab	2001	34	4	18	54	110
Shared Liab	Total	855	266	1,365	1,259	3,748
T&N Only	1984-	138	87	293	16	537
T&N Only	1985	16	12	23	8	59
T&N Only	1986	15	9	21	1	46
T&N Only	1987	15	13	22	3	53
T&N Only	1988	19	10	19	6	55
T&N Only	1989	20	8	27	11	66
T&N Only	1990	16	2	27	3	48
T&N Only	1991	23	5	15	9	52
T&N Only	1992	13	5	14	11	43
T&N Only	1993	16	7	20	29	72
T&N Only	1994	27	6	23	24	80
T&N Only	1995	30	2	23	25	81
T&N Only	1996	38	6	28	57	130
T&N Only	1997	41	5	46	58	149
T&N Only	1998	41	8	32	67	148
T&N Only	1999	33	7	36	86	162
T&N Only	2000	44	8	47	122	222
T&N Only	2001	64	12	50	119	244
T&N Only	Total	609	212	766	655	2,247

Table 32 below shows the annual propensities to sue calculated for each of the three types of asbestos-related cancers for each year since 1992 calculated from Nicholson's forecast of asbestos-related cancer incidence for the U.S. offset by ten years ("Adjusted Nicholson Model"). Because these propensities to sue were calculated from Nicholson's forecast for the U.S., the absolute values of the propensities shown in Table 32 are artificially suppressed. In fact, fewer people will die each year in the U.K. from asbestos-related cancers simply, because the U.K. population is less than in the U.S. In turn, because use of the Nicholson incidence forecasts overestimates annual U.K. deaths, it underestimates the actual propensities to sue for the U.K. As

I discussed in Section 7.4.1. above, this disparity does not by itself bias our forecasts of future U.K. claims.

The propensities to sue among T&N Only claims are essentially flat and stable since the mid-1990s, suggesting that the numbers of cancer filings have increased only because the disease incidences have grown over this period and not because of any increase in claiming behavior. Mesothelioma propensities to sue among Shared Liability claims increased sharply in 1998 but have not increased since that time. I discuss two alternative forecasts of future claims filings below, one assuming that the past propensities to sue will continue unchanged at their recent rates and a second that propensities to sue will increase at the same rates used for the increasing propensity to sue model for the U.S. forecast. Of the two, the non-increasing model seems superior, most consistent with the past pattern of claiming. The increased propensities to sue in 2001 among T&N Only claims is unusual and provides little evidence to assert that claiming rates will increase in the future among T&N Only claimants. Should the 2001 filing rates presage the future, the increasing propensity to sue model provides an estimate of how claims might grow. But based on all the data we have about T&N's past claims filing history in the U.K., the increasing model must be regarded as a possible alternative to the more likely non-increasing model.

Table 32: Propensities to Sue T&N, by Disease: 1992-2001 (U.K.)

TN-Level	Filing Year	Nicholson-Offset	
		Meso	Othc
Shared Liab	1992	0.892	0.102
Shared Liab	1993	1.186	0.226
Shared Liab	1994	1.740	0.120
Shared Liab	1995	1.742	0.045
Shared Liab	1996	2.289	0.154
Shared Liab	1997	2.338	0.110
Shared Liab	1998	6.461	0.145
Shared Liab	1999	5.128	0.163
Shared Liab	2000	4.147	0.220
Shared Liab	2001	1.278	0.057
T&N Only	1992	0.732	0.078
T&N Only	1993	0.842	0.107
T&N Only	1994	1.334	0.090
T&N Only	1995	1.409	0.031
T&N Only	1996	1.687	0.094
T&N Only	1997	1.694	0.065
T&N Only	1998	1.679	0.113
T&N Only	1999	1.318	0.098
T&N Only	2000	1.690	0.120
T&N Only	2001	2.376	0.174

We forecast the number of T&N cancer filings for 2002 using the propensities to sue from the base period 1998-2001. In other words we assume that the percent of cancer victims who would have filed claims against T&N immediately after its bankruptcy would have been the same as the percent in 1998 through 2001.

We have two alternative models about what would happen next:

- One model, the “Increasing” model, assumed propensities to sue would increase over five years and then the propensities to sue would increase no further but would remain for all further years at the level reached in the fifth future year. The rates of increase in the propensity to sue would be the same as the rates of increase used in the increasing model used to forecast future U.S. claims.
- The second and preferred model, the “No-Increase” model, assumed that propensities to sue in all future years would remain at the levels of T&N’s propensities to sue during the base period.

7.4.3. Projection of Future Nonmalignancy Claims in the U.K.

The trend in annual filings of nonmalignant claims against T&N is similar to its trends for cancer claims (Table 31). While there is some year to year variation in trends for cancer and nonmalignant claim filings, trends for both types of diseases are highly similar since 1980.

Again the projection for the first year after T&N’s bankruptcy start with an assumption that the ratio of filings between nonmalignancy and cancer claims will continue to be the same as during the base period. Historically during the base period the number of nonmalignancy claims filed against T&N has been approximately 3.0 times as many as cancer filings. This means that initially nonmalignancy claims will be about three times the number of cancer claims, i.e. 75% of all filings.

We then use two alternative assumptions about how this ratio of nonmalignancy cancer claims will change over time, assumptions that correspond to our two alternative assumptions about future changes in propensities to sue for cancer. The “Increasing” assumption, which is used together with the “Increasing” model of propensities to sue for cancers, assumes that the ratio of nonmalignancy to cancer claims will increase slightly over the next five years and by the end of five years will be about 11% greater than the ratio during the base period, the same rate of increase assumed for the U.S. forecast. Thereafter, the ratio of nonmalignancy to cancer claims will remain unchanged. The second, “No-Increase” assumption, which accompanies the “No-Increase” model of propensities to sue for cancers, assumes that the ratio of nonmalignant to cancer claims observed during the base period will remain unchanged in all future years.

7.4.4. Forecasted Number of Future Claims

Table 33 shows the results of the forecasts for each of the two models, the “No-Increase” and “Increasing” models. Table A4 and Table A5 in Appendix A show the forecasted filings for each disease for each year from 2002 to 2049. We forecast an extra 10 years for the U.K. because of the 10-year Nicholson offset.

Table 33: Number of Forecasted Future U.K. Claims

TN-Level	Model	Disease				Total
		Meso	Othc	Asbe	Pleu	
Shared Liab	No-Increase	3,889	229	3,707	6,738	14,563
T&N Only	No-Increase	1,645	199	1,393	3,325	6,562
Total	No-Increase	5,534	428	5,100	10,063	21,125
Shared Liab	Increasing	5,298	390	5,664	10,303	21,655
T&N Only	Increasing	2,239	337	2,159	5,149	9,884
Total	Increasing	7,537	727	7,823	15,452	31,539

7.4.5. Estimating Liability for Forecasted Future Claims in the U.K.

To value future claims we used the same values that we used for valuing pending claims, the average amounts paid by T&N during the 24 months ending in December 2001 to resolve claims for each type of disease for both the T&N Only claims and the Shared Liability claims (see Table 29, above).

In forecasting the values of future claims, we assumed that payments would be adjusted for future inflation in the U.K. at a rate of 2.5 percent per year. The past and forecasted future inflation rates were obtained from Eurostat. Table 34 shows the value of future claims based on each of our two alternative assumptions about the rate of filing of future claims, using values obtained from recently resolved claim adjusted for future inflation.

Table 34: Forecast Indemnity for Future Claims after December 31, 2001 (U.K.)

TN-Level	Model	Disease				Total
		Meso	Othc	Asbe	Pleu	
Shared Liab	No-Increase	£163	£6	£72	£54	£295
T&N Only	No-Increase	176	11	70	43	300
Total	No-Increase	339	17	142	97	595
Shared Liab	Increasing	£224	£11	£112	£83	£429
T&N Only	Increasing	242	19	110	66	437
Total	Increasing	466	30	222	149	866

Notes: Millions of year 2001 pounds. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5%.

The results in Table 34 estimate the value that we forecast for future claims in terms of the pounds sterling in the year when claims are allowed--these represent the amounts of allowances in each future year. However, these do not represent the present value of T&N's liabilities. Table 35 shows the estimated present value of these liabilities, based on a discount rate of 5.02%.

Table 35: Present Value (PV) of Future Claims as of December 31, 2001 (U.K.)

TN-Level	Model	Disease				Total
		Meso	Othc	Asbe	Pleu	
Shared Liab	No-Increase	£63	£3	£28	£21	£115
T&N Only	No-Increase	68	5	28	17	117
Total	No-Increase	£131	£8	£56	£38	£232
Shared Liab	Increasing	£85	£5	£42	£32	£163
T&N Only	Increasing	91	8	42	26	167
Total	Increasing	£176	£13	£84	£58	£330

Notes: Millions of year 2001 pounds. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5%. Discount rate is 5.02%.

7.5. Forecasted Total Liability for T&N's U.K. claims

Table 36 and Table 37 show our forecast of the value of pending and future asbestos bodily injury claims against T&N in the U.K. We present these results only for our future No-Increase model, our preferred model. Table 36 shows these liabilities in nominal pounds of the day when T&N will pay each claim--the sum of what T&N would have to pay each year to resolve pending and future claims were T&N to continue to resolve these claims through settlement and trials in the tort litigation system. Table 37 shows the present value of these payment, assuming a 5.02 percent discount rate.

Table 36: The Total Value of Pending and Future U.K. Claims Against T&N

Claims	Disease				Total
	Meso	Othc	Asbe	Pleu	
Pending	£9	£1	£3	£2	£15
Future	339	17	142	97	595
All Claims	£348	£18	£145	£99	£610

Notes: Millions of nominal pounds in years paid. Future claims for No-Increase model. Pending claims are assumed to average 1.5 years to settlement. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5%.

Table 37: The Present Value of Pending and Future U.K. Claims Against T&N

Claims	Disease				Total
	Meso	Othc	Asbe	Pleu	
Pending	£8	£1	£3	£2	£14
Future	121	8	52	34	215
All Claims	£129	£9	£55	£36	£229

Notes: Millions of nominal pounds in years paid. Future claims for No-Increase model. Pending claims are assumed to average 1.5 years to settlement. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5%. Discount rate is 5.02%.

Figure 16 shows how the present values of T&N's obligations are distributed among the different types of diseases for the future No-Increase model, which is most consistent with the T&N's history of claim filings in the U.K. and is, therefore, our preferred future forecast model for the U.K.

Figure 16: Percentage Distribution of PV of Total Liability, by Disease:
Future No-Increase Model

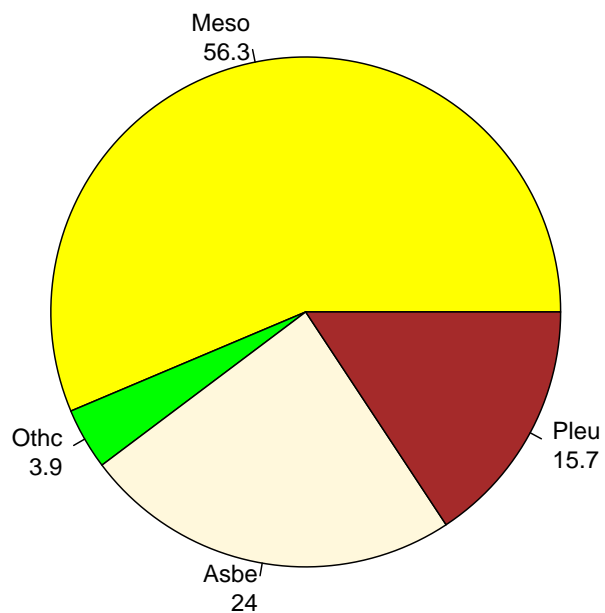
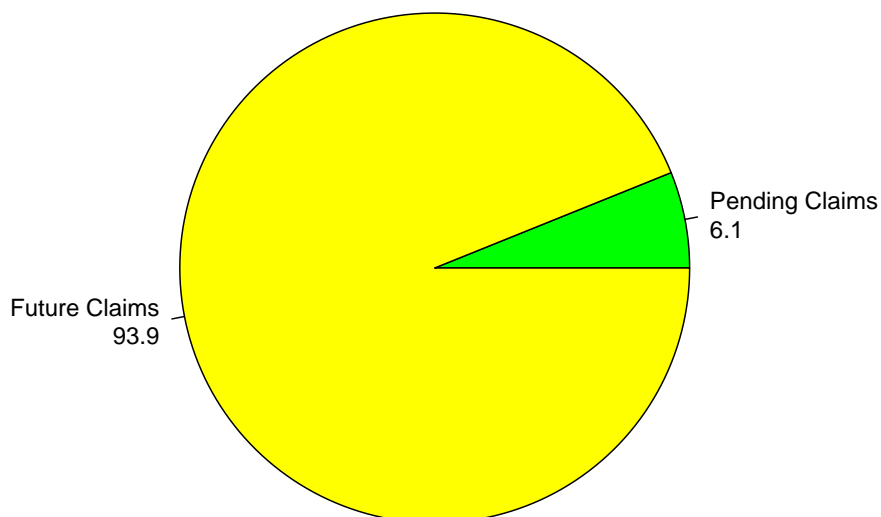


Figure 17 shows how the present values of T&N's obligations are distributed among indemnity for pending claims and indemnity for future claims.

Figure 17: Percentage Distribution of PV-Liabilities by Expense Type:
Future No-Increase Model



8. Sensitivity Analyses

Forecasts of asbestos liabilities are inherently uncertain. While our forecasts have strong methodological and empirical bases--epidemiological forecasts of asbestos diseases that have been tested and confirmed by twenty years of SEER counts of mesothelioma deaths; T&N's own recent claims history; the contemporaneous experiences of other asbestos defendants both before and after T&N's bankruptcy petition-- forecasts of T&N's future liability would differ somewhat if we had made different assumptions about epidemiology, propensities to sue, or payment amounts in future years. This section examines how forecasts would have differed under different assumptions.

8.1. Sensitivity Analysis Variations

This process of studying how predictions change with changes in key assumptions is known as sensitivity analysis and is a primary way for examining and understanding scientific forecasting. In this section, we discuss alternative forecasts for T&N's asbestos liability in the U.S. obtained by systematically varying seven types of parameters. We ran one sensitivity for forecasts of T&N's U.K. liability, alternative assumptions about trends in future propensities to sue, and the results of this sensitivity test are presented throughout Section 7 of this report. All other sensitivity tests in this section address forecasts for U.S. claims. Effects on U.K. forecasts of using alternative epidemiological models would be similar to the effects for the U.S (Section 8.2.1) so we do not replicate the analysis for U.K. forecasts. Because of the limited and stable

data on T&N's U.K. claims, the other variations of our U.S. sensitivity analyses would provide little information for the U.K. forecasts.

- The choice of epidemiological projections (Nicholson base vs. KPMG)

In 1992 the consulting firm KPMG-Peat Marwick adjusted the Nicholson epidemiological forecasts as part of their engagement in the bankruptcy proceedings of National Gypsum. KPMG retained most of elements of the Nicholson forecasts but used more recent Labor Department data and alternative medical models to estimate the probabilities of mesothelioma and lung cancer. As shown in Figure 5, above, the KPMG forecasts are a reasonable, although less preferable alternative to the original Nicholson forecasts of asbestos related cancer deaths. The Nicholson forecasts are preferable because they have been more closely confirmed by subsequent SEER data on annual mesothelioma deaths. To examine the effects of using the specific Nicholson epidemiological forecasts of future cancer deaths, we also forecast future claims and liabilities using the KPMG forecasts.

- Alternative periods for determining propensities to sue (2000-2001 base vs. 1999-2001)

For our forecasts we calculated propensities to sue over the most recent 21 months ending on September 30, 2001 immediately preceding T&N's bankruptcy petition. As we discussed in Section 6 of this report, 2000-2001 provides the best choice as the base period for calculating propensities to sue, both because claim filings against T&N have increased steadily until its bankruptcy and also because those claim filings would continue to increase in future years. However, for purposes of the sensitivity analyses we used an alternative base period 1999-2001 that shows how much forecasts of future claims are lowered by the addition of an earlier year that had fewer claim filings.

- Use of propensities to sue that increase and those with no increase

Throughout this report we have presented and discussed a sensitivity analysis showing how forecasts in both the U.S. and U.K. would differ for two alternative assumptions about future propensities to sue: (1) the Increasing assumption that propensities to sue would increase for five years in the future and would remain unchanged thereafter and (2) the No Increase assumption that propensities to sue would remain at the level of the base period for all future years. The rates of increase are based on the ratio of filings against the Manville and UNR Trusts between 1992-1994 and 1995-1997. Because the KPMG and Nicholson epidemiological projections differ, the rate of increases in propensities to sue differ slightly between the KPMG and Nicholson models.

Table 38: Rates of Increase in Propensities to Sue Over Five Years

Disease	Model	
	KPMG	Nicholson
Meso	1.426	1.392
Lung	1.536	1.490
Othc	1.838	1.791
Nonm	1.113	1.113

- Alternative assumptions about nonmalignancy multipliers:

The ratio of nonmalignant to cancer claim filings in the U.S. remained stable throughout most of the 1990s and into 2000, but increased by about 50 percent in 2001. In Section 6 of this report we forecasted the number of future nonmalignant claims conservatively using the ratio of nonmalignant to cancer filings during 2000. The 2000 ratio was slightly lower than preceding years and substantially lower than the ratio for 2001, so this assumption minimizes the forecast of future nonmalignant claims. As a sensitivity we calculated the nonmalignant multiplier from claims filed in 2000 and 2001.

As an additional sensitivity, we included an alternative to address the view of some that relatively fewer nonmalignant claims might be filed in future years. For this sensitivity we started with our preferred and most conservative nonmalignant multiplier derived from year 2000 filings against T&N and then assumed that this ratio of nonmalignant to cancer claims would decrease further to 90 percent of its 2000 level.

- Use of alternative estimates of the settlement values of claims:

In addition to the analyses of current T&N settlement values described in Section 6 above that established our forecasts of T&N's U.S. liability, we used three alternative sets of values to examine sensitivities in our estimates of T&N's current settlement values. The table below shows all four of these sets of values. The "B&W Basis" and "OC Basis" start with the values in Table 6 which use data from B&W and OC respectively to calculate the ratios of settlement amounts across diseases in order to estimate values for lung cancer, other cancer and nonmalignant claims. We then adjust these for inflation to determine values in year 2001 dollars. The fourth alternative simply uses recent settlement values for Owens Corning under the assumption that T&N's settlement values would reach or exceed settlements paid by OC. Because the OC settlements are already stated in year 2001 dollars they are not adjusted for inflation.

These alternative values are used to estimate liabilities for both pending and future claims.

Table 39: Alternative T&N Settlement Averages

Variation	Settlement Values, By Disease			
	Meso	Lung	Othc	Nonm
Forecast	\$189,036	\$30,246	\$13,941	\$6,616
Adjusted B&W Basis	210,291	70,645	41,072	16,429
Adjusted OC Basis	210,291	46,261	17,408	6,963
Actual OC	215,024	45,325	19,745	7,815

Notes: Settlement averages in 2001 dollars. Base case is in red. The "Forecast" entry has settlement averages used for forecasts in Section 6 of this report and are the values in Table 8 adjusted for inflation between 2001 and 2004.

- Assumptions about the percent of claims that will be paid (2000-2001 base vs. 70% and 1998-2001)

We also ran two alternative estimates of the percent of claims within each disease that would be paid by T&N. These alternatives are shown on the table below together with the percentage of payable claims that we used to forecast T&N's liabilities, which equaled the percent of claims in each disease paid by T&N during 2000 and 2001. The first alternative extended the base period used to calculate T&N's historic percent of paid claims to years

1998 through 2001. The second alternative assumes that T&N would pay a substantially lower percent of claims in each disease, assuming a 70 percent rate for each disease.

Again these alternative values are used to estimate liabilities for both pending and future claims.

Table 40: Alternative Percents of Payable Claims

Variation	Disease			
	Meso	Lung	Othc	Nonm
Percents, 2000-2001	86.603	91.352	94.466	94.341
Percents, 1998-2001	92.011	94.174	94.424	94.167
Assumed 70%	70.000	70.000	70.000	70.000

Note: Base case is in red.

- Alternative discount rates (5.5% vs. 5.02%)

Discount rates are used to determine the present values of T&N's liabilities to present and future asbestos claims as of the petition date, October 1, 2001. The discount rate as of October 1, 2001 is measured as the risk-free rate of return from that date until payment of each claim and is, therefore, a weighted average of risk-free rates of return for the period until payment of claims in each future year, where the weight is the amount of T&N's liability that will be paid in each year. Our forecasts use a 5.02 percent discount rate that was provided by L. Tersigni Consulting, financial advisors to the Asbestos Claimants Committee. For the sensitivity analyses we use an alternatives 5.5 percent discount rate.

8.2. Sensitivity Analysis Results

8.2.1. Alternative Epidemiological Model Effects

Because the KPMG epidemiological models forecast a more rapid decline in the incidence of asbestos related cancers in future years, forecasts based on that model produce fewer future claims and lower liabilities than forecasts based on use of the Nicholson epidemiological model. Forecast differences from use of the two alternative epidemiological models are modest. These results are shown in Table 41.

As Table 41 also shows, differences in forecasts between the two epidemiological models are smallest for the forecasting model that assumes increasing propensities to sue, the preferred model. Use of the KPMG epidemiological model reduces the number of forecasted future claims by 3.7 percent for the preferred Increasing forecast model, less than the 6.2 percent reduction for the No Increase forecast model. Use of the KPMG rather than the Nicholson epidemiological model reduces the present valued liability forecast by 6.2 percent for the preferred Increasing propensity model compared to an 8.3 percent reduction for the No Increase model.

Table 41: Comparison of Epidemiological Models

Outcome	Disease	Increasing Model			No Increase Model		
		Nicholson	KPMG	%Change	Nicholson	KPMG	%Change
Filings	Meso	37,339	33,245	-11.0	27,850	24,357	-12.5
Filings	Lung	36,951	37,495	+1.5	26,304	25,974	-1.3
Filings	Othc	14,918	15,146	+1.5	9,027	8,945	-0.9
Filings	Nonm	999,232	961,808	-3.7	643,598	603,810	-6.2
Filings	Total	1,088,440	1,047,694	-3.7	706,779	663,086	-6.2
Liability	Meso	\$9,088	\$8,014	-11.8	\$6,714	\$5,808	-13.5
Liability	Lung	1,445	1,488	+3.0	1,016	1,016	+0.0
Liability	Othc	279	288	+3.2	166	167	+0.6
Liability	Nonm	9,048	8,740	-3.4	5,747	5,399	-6.1
Liability	Total	\$19,861	\$18,530	-6.7	\$13,642	\$12,390	-9.2
PV	Meso	\$4,324	\$3,886	-10.1	\$3,259	\$2,880	-11.6
PV	Lung	753	756	+0.4	543	531	-2.2
PV	Othc	144	145	+0.7	89	87	-2.2
PV	Nonm	4,502	4,325	-3.9	2,944	2,763	-6.1
PV	Total	\$9,724	\$9,112	-6.3	\$6,835	\$6,261	-8.4

Notes: The table values future claims, in millions of year 2001 dollars. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year. Discount rate is 5.02%. Base case is in red.

8.2.2. Alternative Base Period Effects

As shown in Table 42, the forecasted number of future claims and total liability for future claims decreased by about 11 percent from use of a longer, three year propensity to sue base period 1999-2001. This effect was identical for both the preferred Increasing future forecast model and the alternative No Increase model, so we show the results only for the preferred model.

Table 42: Comparison of Base Period Effects

Outcome	Disease	Variation		%Change From Base
		2000-2001	1999-2001	
Filings	Meso	37,339	33,299	-10.8
Filings	Lung	36,951	32,186	-12.9
Filings	Othc	14,918	13,269	-11.1
Filings	Nonm	999,232	882,147	-11.7
Filings	Total	1,088,440	960,901	-11.7
Liability	Meso	\$9,088	\$8,105	-10.8
Liability	Lung	1,445	1,259	-12.9
Liability	Othc	279	248	-11.1
Liability	Nonm	9,048	7,989	-11.7
Liability	Total	\$19,861	\$17,602	-11.4
PV	Meso	\$4,324	\$3,856	-10.8
PV	Lung	753	656	-12.9
PV	Othc	144	128	-11.1
PV	Nonm	4,502	3,974	-11.7
PV	Total	\$9,724	\$8,614	-11.4

Notes: The table values future claims, in millions of year 2001 dollars. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year. Discount rate is 5.02%. Base case is in red.

8.2.3. Propensity to Sue Effects

These alternatives present a sensitivity test about what will happen with future propensities to sue. We presented the results for the two alternative propensity to sue assumptions throughout the report above: the Increasing model that best forecasts future claims and the No Increase models that is less likely.

8.2.4. Nonmalignant Multiplier Effects

As discussed above, we examined three alternatives for our sensitivity analysis of the number of future nonmalignant claim filings each of which used differing base years: filings during 2000 that was used in our forecasts; the first alternative using 2000 and 2001 claims; and the second alternative that reduces the actual year 2000 nonmalignant multiplier by 10 percent.

As shown in Table 43, when the nonmalignant multiplier is based on filings during both 2000 and 2001 forecasts of future nonmalignant filings increases by 21.8 percent resulting in a 10.1 percent increase in the liability forecast. The second alternative obviously reduces the number of forecasted nonmalignant claims by 10 percent which reduces the total liability forecast by 4.6 percent.

Table 43: Comparison of Nonmalignant Multiplier Effects

Outcome	Disease	Variation			% Change from Base	
		2000	2000-2001	90% of Base	2000-2001	90% of Base
Filings	Meso	37,339	37,339	37,339	+0.0	+0.0
Filings	Lung	36,951	36,951	36,951	+0.0	+0.0
Filings	Othc	14,918	14,918	14,918	+0.0	+0.0
Filings	Nonm	999,232	1,216,620	899,309	+21.8	-10.0
Filings	Total	1,088,440	1,305,828	988,517	+20.0	-9.2
Liability	Meso	\$9,088	\$9,088	\$9,088	+0.0	+0.0
Liability	Lung	1,445	1,445	1,445	+0.0	+0.0
Liability	Othc	279	279	279	+0.0	+0.0
Liability	Nonm	9,048	11,016	8,143	+21.8	-10.0
Liability	Total	\$19,861	\$21,829	\$18,956	+9.9	-4.6
PV	Meso	\$4,324	\$4,324	\$4,324	+0.0	+0.0
PV	Lung	753	753	753	+0.0	+0.0
PV	Othc	144	144	144	+0.0	+0.0
PV	Nonm	4,502	5,482	4,052	+21.8	-10.0
PV	Total	\$9,724	\$10,703	\$9,273	+10.1	-4.6

Notes: The table values future claims, in millions of year 2001 dollars. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year. Discount rate is 5.02%. Base case is in red.

8.2.5. Settlement Value Effects

Table 44 shows the alternative estimates of T&N's liability for pending and future claims using each of the four alternatives discussed above: the values used in our forecast ("Forecast"); alternative values based on B&W's historic ratios of settlement averages among diseases (B&W Basis); alternative values based on OC's historic ratios of settlement averages among diseases (OC Basis) and alternative values equal to OC's actual settlements in recent years (Actual OC). Each of these alternatives produces greater estimates of T&N's liabilities, as shown in Table 44.

Table 44: Comparison of Alternative Settlement Average Effects

Outcome	Disease	Variation				% Change from Base		
		Forecast	B&W Basis	OC Basis	Actual OC	B&W Basis	OC Basis	Actual OC
Liability	Meso	\$9,598	\$10,678	\$10,678	\$10,918	+11.3	+11.3	+13.8
Liability	Lung	1,585	3,703	2,372	2,376	+133.6	+49.7	+49.9
Liability	Othc	308	907	384	436	+194.5	+24.7	+41.6
Liability	Nonm	9,824	24,394	10,338	11,604	+148.3	+5.2	+18.1
Liability	Total	\$21,315	\$39,681	\$23,773	\$25,333	+86.2	+11.5	+18.9
PV	Meso	\$4,798	\$5,338	\$5,338	\$5,458	+11.3	+11.3	+13.8
PV	Lung	883	2,062	1,321	1,323	+133.5	+49.6	+49.8
PV	Othc	171	502	213	242	+193.6	+24.6	+41.5
PV	Nonm	5,223	12,970	5,497	6,170	+148.3	+5.2	+18.1
PV	Total	\$11,075	\$20,873	\$12,369	\$13,193	+88.5	+11.7	+19.1

Notes: The table values pending plus future claims, in millions of year 2001 dollars. Pending claims are assumed to average 1.5 years to settlement. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year. Discount rate is 5.02%. Base case is in red.

8.2.6. Percent Payable Effects

The next sensitivity compared our forecasts of T&N liabilities with two alternative estimates of the percent of pending and future claims that T&N would pay. When we extend the base period for calculating the percent of payable claims to 1998-2001, we increase T&N's forecasted liability by about 3 percent. Alternatively, if we assume that the percent of claims paid by T&N would fall drastically to 70 percent for each disease, we decrease T&N's forecasted liability by over 22 percent.

Table 45: Comparison of Positive Payment Rates

Outcome	Disease	Variation			% Change from Base	
		2000-2001	1998-2001	70%	1998-2001	70%
Liability	Meso	\$9,598	\$10,198	\$7,758	+6.3	-19.2
Liability	Lung	1,585	\$1,634	\$1,215	+3.1	-23.3
Liability	Othc	308	\$308	\$228	+0.0	-26.0
Liability	Nonm	9,824	\$9,806	\$7,289	-0.2	-25.8
Liability	Total	\$21,315	\$21,945	\$16,490	+3.0	-22.6
PV	Meso	\$4,798	\$5,098	\$3,878	+6.3	-19.2
PV	Lung	\$883	\$910	\$677	+3.1	-23.3
PV	Othc	171	\$170	\$126	+0.0	-26.0
PV	Nonm	5,223	\$5,214	\$3,876	-0.2	-25.8
PV	Total	\$11,075	\$11,392	\$8,557	+3.0	-22.6

Notes: The table values pending plus future claims, in millions of year 2001 dollars. Pending claims are assumed to average 1.5 years to settlement. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year. Discount rate is 5.02%. Base case is in red.

8.2.7. Discount Rate Effects

Table 46 contains the estimated present value of T&N's liabilities, based on two alternative discount rates that represent the risk free rates of return that T&N would earn on its assets after taxes. The rate 5.02%, used in this report, was provided by L. Tersigni Consulting. For the sensitivity analysis we used a greater discount rate, 5.5%. The half-point increase in the discount rate decreases the present value of T&N's liabilities by about five percent.

Table 46: Comparison of Discount Rates

Outcome	Disease	Variation		%Change From Base
		5.02 Percent	5.5 Percent	
PV	Meso	\$4,798	\$4,554	-5.1
PV	Lung	883	846	-4.2
PV	Othc	171	163	-4.7
PV	Nonm	5,223	4,990	-4.5
PV	Total	\$11,075	\$10,555	-4.7

Notes: The table values pending plus future claims, in millions of year 2001 dollars. Pending claims are assumed to average 1.5 years to settlement. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year. Base case is in red.

9. Rule 26 Disclosures and Signature

DATA CONSIDERED: In reaching the opinions and conclusions set forth in this Report, I have considered the following information: my background, training, experience and knowledge of the asbestos litigation developed over the past 20 years, the items of data explicitly identified in the report, the reports, articles and documents specifically identified in the report, publicly available sources of information concerning inflation rates, publicly available documents about T&N, the claims databases referenced in the report, discount rates provided to me by L. Tersigni, Consulting.

EXHIBITS: The exhibits which summarize my opinions are included in the graphics and tables in the report and in the appendices to the report.

QUALIFICATIONS: My qualifications to perform this analysis and provide expert testimony are set forth in my C.V., a copy of which is attached as Exhibit 1.

PUBLICATIONS: Any publications I have authored within the past ten years are set forth in my C.V.

COMPENSATION: My compensation for services rendered in this case is set forth in the fee applications Legal Analysis Systems files on a regular basis with the Bankruptcy Court. At present, my hourly rate is \$600.

PRIOR TESTIMONY: A listing of all cases in which I have testified as an expert at either trial or deposition within the past four years is attached as Exhibit 2.

I reserve the right to modify this report as new information becomes available between now and the time of trial. I anticipate that I will review the expert witness reports of opposing expert(s) and offer my opinions about their analyses and conclusions in rebuttal testimony.

/s/ Mark A. Peterson

Mark A. Peterson, J.D., Ph.D.
LEGAL ANALYSIS SYSTEMS

Appendix A - Year by Disease Projections

This appendix provides the year by disease projections of Nicholson and KPMG (cancer incidences) and LAS U.S. and U.K. T&N filings.

Table A1: Nicholson Epidemiological Projections

Death Year	Meso	Disease Lung	Othc	Total Cancers	Death Year	Meso	Disease Lung	Othc	Total Cancers
1970	1,010	2,909	963	4,882	2005	3,023	4,230	1,143	8,396
1971	1,046	3,098	998	5,142	2006	3,011	4,075	1,099	8,185
1972	1,082	3,286	1,034	5,402	2007	2,999	3,921	1,055	7,975
1973	1,151	3,502	1,065	5,718	2008	2,931	3,734	1,006	7,672
1974	1,219	3,719	1,096	6,034	2009	2,864	3,547	958	7,369
1975	1,288	3,935	1,128	6,351	2010	2,796	3,361	909	7,066
1976	1,356	4,152	1,159	6,667	2011	2,729	3,174	861	6,763
1977	1,425	4,368	1,190	6,983	2012	2,661	2,987	812	6,460
1978	1,495	4,505	1,227	7,228	2013	2,545	2,811	762	6,119
1979	1,565	4,643	1,264	7,472	2014	2,429	2,635	713	5,778
1980	1,635	4,780	1,302	7,717	2015	2,314	2,460	663	5,436
1981	1,705	4,918	1,339	7,961	2016	2,198	2,284	614	5,095
1982	1,775	5,055	1,376	8,206	2017	2,082	2,108	564	4,754
1983	1,900	5,138	1,400	8,438	2018	1,965	1,937	519	4,421
1984	2,024	5,222	1,424	8,670	2019	1,847	1,766	474	4,088
1985	2,149	5,305	1,447	8,901	2020	1,730	1,596	430	3,755
1986	2,273	5,389	1,471	9,133	2021	1,612	1,425	385	3,422
1987	2,398	5,472	1,495	9,365	2022	1,495	1,254	340	3,089
1988	2,468	5,477	1,495	9,440	2023	1,379	1,132	307	2,819
1989	2,538	5,482	1,495	9,515	2024	1,264	1,011	274	2,549
1990	2,608	5,487	1,494	9,589	2025	1,148	889	242	2,279
1991	2,678	5,492	1,494	9,664	2026	1,033	768	209	2,009
1992	2,748	5,497	1,494	9,739	2027	917	646	176	1,739
1993	2,792	5,449	1,480	9,722	2028	827	575	157	1,558
1994	2,836	5,402	1,466	9,705	2029	740	508	138	1,386
1995	2,881	5,354	1,453	9,687	2030	657	446	122	1,225
1996	2,925	5,307	1,439	9,670	2031	579	388	105	1,072
1997	2,969	5,259	1,425	9,653	2032	507	336	92	935
1998	2,987	5,146	1,395	9,528	2033	443	316	79	837
1999	3,005	5,033	1,365	9,403	2034	383	246	67	696
2000	3,024	4,919	1,334	9,277	2035	332	208	57	596
2001	3,042	4,806	1,304	9,152	2036	282	174	47	503
2002	3,060	4,693	1,274	9,027	2037	240	144	38	423
2003	3,048	4,539	1,230	8,817	2038	201	117	32	351
2004	3,036	4,384	1,186	8,606	2039	169	94	26	290

Note: Nicholson's projections run through 2030. LAS extended those to 2039 using the year by disease rates of decline derived from the KPMG projections, below.

Table A2: KPMG Epidemiological Projections

Death Year	Meso	Disease Lung	Othc	Total Cancers	Death Year	Meso	Disease Lung	Othc	Total Cancers
1970	861	3,234	1,196	5,291	2005	2,347	3,638	990	6,975
1971	931	3,592	1,130	5,653	2006	2,294	3,474	945	6,713
1972	1,003	3,721	1,171	5,895	2007	2,234	3,311	900	6,445
1973	1,079	3,846	1,211	6,136	2008	2,173	3,149	857	6,179
1974	1,157	3,974	1,251	6,382	2009	2,105	2,989	813	5,907
1975	1,237	4,147	1,305	6,689	2010	2,034	2,831	769	5,634
1976	1,308	4,278	1,165	6,751	2011	1,960	2,674	728	5,362
1977	1,386	4,428	1,204	7,018	2012	1,880	2,520	686	5,086
1978	1,465	4,577	1,246	7,288	2013	1,798	2,371	644	4,813
1979	1,545	4,728	1,287	7,560	2014	1,713	2,224	604	4,541
1980	1,628	4,897	1,333	7,858	2015	1,627	2,083	566	4,276
1981	1,708	5,042	1,371	8,121	2016	1,538	1,942	528	4,008
1982	1,789	5,158	1,403	8,350	2017	1,447	1,808	492	3,747
1983	1,869	5,261	1,432	8,562	2018	1,357	1,677	457	3,491
1984	1,949	5,338	1,452	8,739	2019	1,269	1,553	422	3,244
1985	2,030	5,401	1,469	8,900	2020	1,180	1,434	390	3,004
1986	2,102	5,431	1,478	9,011	2021	1,094	1,317	358	2,769
1987	2,173	5,441	1,480	9,094	2022	1,009	1,206	328	2,543
1988	2,242	5,441	1,480	9,163	2023	928	1,101	300	2,329
1989	2,306	5,433	1,478	9,217	2024	850	998	272	2,120
1990	2,367	5,410	1,472	9,249	2025	775	902	245	1,922
1991	2,418	5,362	1,458	9,238	2026	703	811	221	1,735
1992	2,459	5,293	1,440	9,192	2027	634	724	197	1,555
1993	2,493	5,218	1,420	9,131	2028	571	643	175	1,389
1994	2,521	5,135	1,397	9,053	2029	510	567	154	1,231
1995	2,538	5,037	1,370	8,945	2030	452	497	136	1,085
1996	2,546	4,928	1,341	8,815	2031	398	431	117	946
1997	2,547	4,807	1,307	8,661	2032	348	373	101	822
1998	2,543	4,682	1,273	8,498	2033	303	346	87	736
1999	2,534	4,550	1,238	8,322	2034	262	271	74	607
2000	2,522	4,414	1,201	8,137	2035	226	228	62	516
2001	2,497	4,265	1,159	7,921	2036	192	190	51	433
2002	2,469	4,110	1,117	7,696	2037	163	157	42	362
2003	2,433	3,955	1,076	7,464	2038	136	127	35	298
2004	2,393	3,798	1,033	7,224	2039	114	102	28	244

Table A3: U.S. T&N Forecasts as of October 1, 2001

Filing Year	Increasing Model					No Increase Model				
	Meso	Lung	Othc	Nonm	Total	Meso	Lung	Othc	Nonm	Total
[2001]	331	430	148	9,264	10,174	331	430	148	9,264	10,174
2002	1,325	1,720	593	37,057	40,694	1,325	1,720	593	37,057	40,694
2003	1,451	1,858	682	41,810	45,801	1,321	1,655	570	36,126	39,672
2004	1,574	1,991	767	46,624	50,956	1,316	1,599	549	35,292	38,756
2005	1,696	2,110	843	51,382	56,031	1,311	1,543	529	34,458	37,841
2006	1,817	2,215	911	56,063	61,006	1,305	1,486	509	33,623	36,923
2007	1,810	2,131	875	54,616	59,432	1,300	1,430	489	32,790	36,009
2008	1,769	2,029	835	52,545	57,178	1,271	1,362	466	31,568	34,667
2009	1,728	1,928	794	50,473	54,923	1,242	1,294	444	30,346	33,326
2010	1,687	1,826	754	48,403	52,670	1,212	1,226	421	29,124	31,983
2011	1,647	1,725	714	46,331	50,417	1,183	1,157	399	27,902	30,641
2012	1,606	1,623	673	44,260	48,162	1,154	1,089	376	26,680	29,299
2013	1,536	1,528	632	41,917	45,613	1,103	1,025	353	25,282	27,763
2014	1,466	1,432	591	39,575	43,064	1,053	961	330	23,883	26,227
2015	1,396	1,337	550	37,232	40,515	1,003	897	307	22,484	24,691
2016	1,326	1,241	509	34,890	37,966	953	833	284	21,086	23,156
2017	1,256	1,146	468	32,547	35,417	903	769	261	19,688	21,621
2018	1,186	1,053	431	30,270	32,940	852	707	240	18,323	20,122
2019	1,115	960	393	27,992	30,460	801	644	220	16,959	18,624
2020	1,044	867	356	25,714	27,981	750	582	199	15,594	17,125
2021	973	774	319	23,437	25,503	699	520	178	14,230	15,627
2022	902	681	282	21,160	23,025	648	457	157	12,866	14,128
2023	832	615	255	19,310	21,012	598	413	142	11,748	12,901
2024	763	549	228	17,461	19,001	548	369	127	10,632	11,676
2025	693	483	200	15,611	16,987	498	324	112	9,514	10,448
2026	623	417	173	13,762	14,975	448	280	97	8,398	9,223
2027	553	351	146	11,914	12,964	398	236	82	7,280	7,996
2028	499	312	130	10,677	11,618	359	210	73	6,528	7,170
2029	447	276	114	9,490	10,327	321	185	64	5,804	6,374
2030	396	242	101	8,394	9,133	285	163	57	5,135	5,640
2031	350	211	87	7,342	7,990	251	141	49	4,494	4,935
2032	306	183	76	6,405	6,970	220	123	42	3,921	4,306
2033	267	172	65	5,717	6,221	192	115	36	3,500	3,843
2034	231	134	56	4,771	5,192	166	90	31	2,923	3,210
2035	200	113	47	4,085	4,445	144	76	26	2,505	2,751
2036	170	94	39	3,442	3,745	122	63	22	2,113	2,320
2037	145	79	32	2,896	3,152	104	53	18	1,779	1,954
2038	121	64	27	2,406	2,618	87	43	15	1,477	1,622
2039	102	51	22	1,987	2,162	73	34	12	1,222	1,341
Total	37,339	36,951	14,918	999,232	1,088,440	27,850	26,304	9,027	643,598	706,779

Note: The entries for 2001 are for 1/4 of a year.

Table A4: U.K. T&N Forecasts as of January 1, 2002: No-Increase Model

Filing Year	Shared Liability					T&N Only				
	Meso	Othc	Asbe	Pleu	Total	Meso	Othc	Asbe	Pleu	Total
2002	115	10	113	205	443	49	9	44	104	206
2003	117	10	115	208	450	50	9	44	105	208
2004	119	10	116	211	456	50	9	45	107	211
2005	121	10	118	214	463	51	9	45	108	213
2006	123	10	119	217	469	52	9	46	109	216
2007	125	10	121	220	476	53	8	46	110	217
2008	125	10	121	221	477	53	8	46	111	218
2009	126	9	122	222	479	53	8	46	111	218
2010	127	9	122	223	481	54	8	47	111	220
2011	128	9	123	224	484	54	8	47	111	220
2012	128	9	123	224	484	54	8	47	112	221
2013	128	8	123	223	482	54	7	46	111	218
2014	127	8	122	222	479	54	7	46	110	217
2015	127	8	121	221	477	54	7	46	109	216
2016	126	8	121	219	474	53	7	45	108	213
2017	126	7	120	218	471	53	6	45	107	211
2018	123	7	117	213	460	52	6	44	105	207
2019	120	7	114	207	448	51	6	43	102	202
2020	117	6	111	202	436	50	5	42	99	196
2021	115	6	108	197	426	48	5	40	97	190
2022	112	6	106	192	416	47	5	39	94	185
2023	107	5	101	183	396	45	5	38	90	178
2024	102	5	96	175	378	43	4	36	85	168
2025	97	5	91	166	359	41	4	34	81	160
2026	92	4	87	158	341	39	4	32	77	152
2027	87	4	82	149	322	37	3	31	73	144
2028	82	4	77	141	304	35	3	29	69	136
2029	78	3	73	132	286	33	3	27	64	127
2030	73	3	68	124	268	31	3	25	60	119
2031	68	3	63	115	249	29	2	23	56	110
2032	63	2	59	106	230	27	2	22	52	103
2033	58	2	54	98	212	24	2	20	47	93
2034	53	2	49	90	194	22	2	18	43	85
2035	48	2	45	82	177	20	1	16	39	76
2036	43	1	40	73	157	18	1	15	35	69
2037	38	1	36	65	140	16	1	13	31	61
2038	35	1	32	59	127	15	1	12	28	56
2039	31	1	29	52	113	13	1	11	25	50
2040	28	1	26	46	101	12	1	9	22	44
2041	24	1	23	41	89	10	1	8	20	39
2042	21	1	20	36	78	9	1	7	17	34
2043	19	1	17	31	68	8	0	6	15	29
2044	16	0	15	27	58	7	0	5	13	25
2045	14	0	13	23	50	6	0	5	11	22
2046	12	0	11	20	43	5	0	4	10	19
2047	10	0	9	17	36	4	0	3	8	15
2048	8	0	8	14	30	4	0	3	7	14
2049	7	0	7	12	26	3	0	2	6	11
Total	3,889	229	3,707	6,738	14,563	1,645	199	1,393	3,325	6,562

Table A5: U.K. T&N Forecasts as of January 1, 2002: Increasing Model

Filing Year	Shared Liability					T&N Only				
	Meso	Othc	Asbe	Pleu	Total	Meso	Othc	Asbe	Pleu	Total
2002	115	10	113	205	443	49	9	44	104	206
2003	129	12	130	237	508	54	10	50	120	234
2004	142	14	149	270	575	60	12	58	138	268
2005	156	16	168	306	646	66	14	66	156	302
2006	171	18	189	344	722	72	15	74	176	337
2007	173	18	191	348	730	73	15	75	178	341
2008	175	17	192	349	733	74	15	75	178	342
2009	176	17	193	350	736	74	14	75	178	341
2010	177	16	193	352	738	75	14	75	179	343
2011	178	16	194	353	741	75	14	75	179	343
2012	179	16	195	354	744	76	13	75	179	343
2013	178	15	194	352	739	75	13	74	178	340
2014	177	15	192	350	734	75	13	74	176	338
2015	177	14	191	347	729	75	12	73	175	335
2016	176	14	190	345	725	74	12	73	173	332
2017	175	13	189	343	720	74	11	72	172	329
2018	171	12	184	335	702	72	11	70	167	320
2019	167	12	179	326	684	71	10	68	163	312
2020	163	11	175	318	667	69	10	66	158	303
2021	159	11	170	310	650	67	9	64	154	294
2022	155	10	166	301	632	66	9	63	149	287
2023	149	9	158	288	604	63	8	60	143	274
2024	142	9	151	275	577	60	8	57	136	261
2025	135	8	144	261	548	57	7	54	129	247
2026	128	8	136	248	520	54	7	51	122	234
2027	122	7	129	234	492	51	6	48	116	221
2028	115	6	121	221	463	49	6	46	109	210
2029	108	6	114	207	435	46	5	43	102	196
2030	101	5	107	194	407	43	5	40	95	183
2031	94	5	99	180	378	40	4	37	88	169
2032	87	4	92	167	350	37	4	34	81	156
2033	81	4	85	154	324	34	3	31	75	143
2034	74	3	77	141	295	31	3	29	69	132
2035	67	3	70	128	268	28	3	26	62	119
2036	60	3	63	115	241	26	2	23	56	107
2037	54	2	56	102	214	23	2	21	49	95
2038	48	2	50	92	192	20	2	19	44	85
2039	43	2	45	82	172	18	1	17	40	76
2040	38	1	40	73	152	16	1	15	35	67
2041	34	1	35	64	134	14	1	13	31	59
2042	30	1	31	56	118	13	1	11	27	52
2043	26	1	27	49	103	11	1	10	24	46
2044	22	1	23	42	88	9	1	9	20	39
2045	19	1	20	37	77	8	1	7	18	34
2046	16	1	17	31	65	7	0	6	15	28
2047	14	0	15	26	55	6	0	5	13	24
2048	12	0	12	22	46	5	0	4	11	20
2049	10	0	10	19	39	4	0	4	9	17
Total	5,298	390	5,664	10,303	21,655	2,239	337	2,159	5,149	9,884

Appendix B - January 2002 Memo on Manville Trust's TDP

I prepared the following tables in January 2001 in my role as the Special Advisor to the Manville Personal Injury Settlement Trust for hearings ordered by Judge Jack Weinstein and Judge Burton Lifland regarding the payments that Manville claimants were receiving for each asbestos related disease under the then current TDP. These tables were distributed to the Judges, the Manville Trust, the Legal Representative of Future Claimants and the Selected Counsel for the Beneficiaries and were entered into the record for Findlay v. Falise by Judge Weinstein.

RATIO OF MESOTHELIOMA TO NONMALIGNANT SETTLEMENTS FOR TEN DEFENDANTS

Def	Settlement Years		Change in Ratio
	1993- 1995	1998- 2000	
Man	6.6	6.6	1.00
B&W	10.0	12.8	1.28
1	9.8	14.9	1.52
2	8.8	15.7	1.78
3	10.1	19.9	1.97
4	10.5	22.2	2.11
5	9.9	22.3	2.25
6	11.1	29.7	2.68
OC	12.7	30.2	2.38

CHANGE IN MESOTHELIOMA AND NONMALIGNANT SETTLEMENTS
 BETWEEN 1993-1995 AND 1998-2000 FOR TEN DEFENDANTS

Def	Years	Settlements (Mean \$1,000)		Meso/ Nonmal Ratio	Change in Ratio
		Meso	Nonmal		
Man	98-00	\$216.6	\$32.6	6.6	1.00
Man	93-95	247.3	37.6	6.6	
B&W	98-00	75.6	5.9	12.8	1.28
B&W	93-95	45.9	4.6	10.0	
1	98-00	132.0	8.9	14.9	1.52
1	93-95	78.1	7.9	9.8	
2	98-00	236.2	15.0	15.7	1.78
2	93-95	135.7	15.5	8.8	
3	98-00	56.5	2.8	19.9	1.97
3	93-95	38.6	3.8	10.1	
4	98-00	46.3	2.1	22.2	2.11
4	93-95	28.0	2.7	10.5	
5	98-00	64.6	2.9	22.3	2.25
5	93-95	28.2	2.8	9.9	
6	98-00	42.5	1.4	29.7	2.68
6	93-95	15.5	1.4	11.1	
OC	98-00	235.0	7.8	30.2	2.38
OC	93-95	129.0	10.2	12.7	

RATIO OF LUNG CANCER TO NONMALIGNANT SETTLEMENTS
 FOR TEN DEFENDANTS

Def	Settlement Years		Change in Ratio
	1993- 1995	1998- 2000	
Man	2.8	2.9	1.04
B&W	3.5	4.3	1.23
1	3.5	4.2	1.20
2	3.5	4.2	1.20
3	3.9	5.0	1.28
4	3.9	4.6	1.18
5	3.9	4.7	1.21
6	4.1	5.7	1.39
OC	3.5	6.5	1.86

CHANGE IN LUNG CANCER AND NONMALIGNANT SETTLEMENTS
 BETWEEN 1993-1995 AND 1998-2000 FOR TEN DEFENDANTS

Def	Years	Settlements (Mean \$1,000)		Lung/ Nonmal Ratio	Change in Ratio
		Lung	Nonmal		
Man	98-00	\$ 94.0	\$ 32.6	2.9	1.04
Man	93-95	103.6	37.6	2.8	
B&W	98-00	25.6	5.9	4.3	1.23
B&W	93-95	16.2	4.6	3.5	
1	98-00	37.0	8.9	4.2	1.20
1	93-95	28.0	7.9	3.5	
2	98-00	63.2	15.0	4.2	1.20
2	93-95	53.7	15.5	3.5	
3	98-00	14.2	2.8	5.0	1.28
3	93-95	15.0	3.8	3.9	
4	98-00	9.5	2.1	4.6	1.18
4	93-95	10.6	2.7	3.9	
5	98-00	13.6	2.9	4.7	1.21
5	93-95	11.2	2.8	3.9	
6	98-00	8.1	1.4	5.7	1.39
6	93-95	5.7	1.4	4.1	
OC	98-00	50.5	7.8	6.5	1.86
OC	93-95	35.3	10.2	3.5	

RATIO OF OTHER CANCER TO NONMALIGNANT SETTLEMENTS
 FOR TEN DEFENDANTS

Def	Settlement Years		Change in Ratio
	1993- 1995	1998- 2000	
Man	1.3	1.3	1.00
B&W	2.4	2.5	1.04
1	1.8	2.1	1.17
3	1.9	2.1	1.11
2	2.0	2.3	1.15
4	2.0	2.0	1.00
5	1.9	2.2	1.16
6	2.0	2.2	1.10
OC	1.7	2.5	1.47

CHANGE IN OTHER CANCER AND NONMALIGNANT SETTLEMENTS
 BETWEEN 1993-1995 AND 1998-2000 FOR TEN DEFENDANTS

Def	Years	Settlements (Mean \$1,000)		Other/ Nonmal Ratio	Change in Ratio
		Other	Nonmal		
Man	98-00	\$ 42.8	\$ 32.6	1.3	1.00
Man	93-95	48.5	37.6	1.3	
B&W	98-00	14.7	5.9	2.5	1.04
B&W	93-95	11.1	4.6	2.4	
1	98-00	18.5	8.9	2.1	1.17
1	93-95	14.0	7.9	1.8	
2	98-00	31.8	15.0	2.1	1.11
2	93-95	30.0	15.5	1.9	
3	98-00	6.4	2.8	2.3	1.15
3	93-95	7.6	3.8	2.0	
4	98-00	4.2	2.1	2.0	1.00
4	93-95	5.4	2.7	2.0	
5	98-00	6.3	2.9	2.2	1.16
5	93-95	5.5	2.8	1.9	
6	98-00	3.2	1.4	2.2	1.10
6	93-95	2.9	1.4	2.0	
OC	98-00	19.8	7.8	2.5	1.47
OC	93-95	17.3	10.2	1.7	

TRENDS IN MESOTHELIOMA SETTLEMENTS
 (Adjusted for Inflation)

	Manville	OC	1	B&W	2	5	4	3	6
2000	206,000	226,511	153,445	81,123		95,500	67,236		60,603
1999	218,000	204,918	133,077	81,251	253,750	55,293	44,125	61,917	34,306
1998	226,000	297,700	112,224	69,032	220,809	46,686	35,356	51,745	32,549
1997	222,000	312,610	102,987	64,346	190,912	41,234	36,113	45,858	29,537
1996	222,000	268,219	85,900	57,374	159,593	35,339	30,172	36,118	21,877
1995	244,000	148,782	87,441	57,493	158,369	31,862	32,944	46,435	18,905
1994		121,050	83,545	44,893	128,411	27,716	25,517	40,167	14,009
1993		103,385	59,501	36,414	129,844	27,069	27,212	34,867	14,805
1992		113,502	69,854	21,111	108,187	25,299	19,091	39,479	12,243
1991		97,895	69,009	11,865	130,358	20,773	10,335	50,828	8,310
1990		74,134	48,978	10,169	74,630	10,267	4,789	28,092	4,228

TRENDS IN LUNG CANCER SETTLEMENTS
 (Adjusted for Inflation)

	Manville	OC	1	B&W	2	5	4	3	6
2000	90,000	53,022	36,435	28,078		17,389	12,005		10,621
1999	95,000	46,958	39,023	23,416	59,388	12,114	8,764	14,686	6,698
1998	96,000	53,954	35,019	27,413	66,226	12,292	9,008	13,757	7,282
1997	96,000	57,114	38,070	22,940	59,004	13,019	10,186	15,285	7,321
1996	97,000	33,746	32,010	20,042	48,893	10,934	9,498	12,486	5,395
1995	103,000	34,986	27,880	18,578	56,282	11,999	11,638	17,735	6,025
1994		33,345	27,469	14,485	50,234	10,735	8,849	15,821	5,096
1993		37,189	28,592	15,104	54,393	11,247	10,980	13,906	5,913
1992		42,600	31,601	7,595	46,741	13,168	8,329	17,502	5,871
1991		37,415	25,833	6,569	51,613	9,024	4,368	18,967	3,723
1990		30,393	19,622	5,461	35,717	5,271	2,253	13,639	1,688

TRENDS IN OTHER CANCER SETTLEMENTS
 (Adjusted for Inflation)

	Manville	OC	1	B&W	2	5	4	3	6
2000	41,000	36,823	15,616	13,005		7,298	5,185		3,614
1999	42,000	30,281	17,332	13,312	32,119	6,134	4,189	6,545	2,864
1998	44,000	18,219	23,329	16,791	31,516	5,586	3,624	6,327	3,027
1997	46,000	62,672	16,917	12,082	29,886	6,847	4,665	7,524	3,045
1996	47,000	18,765	17,636	13,955	26,481	5,999	4,447	6,714	2,955
1995	47,000	16,542	14,624	12,114	32,595	7,232	6,985	10,351	3,187
1994		20,422	12,685	10,778	27,553	5,575	4,792	7,802	2,583
1993		16,542	14,471	10,107	30,631	5,144	5,428	6,868	2,878
1992		15,025	12,088	5,110	27,254	7,964	4,966	11,198	3,619
1991		15,471	8,809	5,730	24,010	4,129	2,055	8,245	1,896
1990		15,514	7,735	4,878	16,193	2,721	1,192	6,871	843

TRENDS IN NONMALIGNANT SETTLEMENTS
 (Adjusted for Inflation)

	Manville	OC	1	B&W	2	5	4	3	6
2000	33,000	7,784	9,738	4,949		4,190	2,825	2,054	2,088
1999	32,000	6,792	8,970	6,436	19,804	3,284	2,590	3,564	1,537
1998	28,000	14,852	8,138	5,495	11,962	1,882	1,289	2,386	932
1997	31,000	20,914	7,798	4,748	18,152	3,899	3,351	4,182	2,248
1996	32,000	12,722	7,812	5,157	15,168	3,446	2,606	3,740	1,722
1995	37,000	7,620	7,779	4,929	14,030	2,841	2,372	4,264	1,549
1994		11,606	7,521	4,409	14,891	2,779	2,502	4,151	1,500
1993		12,511	8,655	4,416	15,970	2,872	2,795	3,649	1,345
1992		12,750	8,196	3,608	14,340	4,090	2,222	5,232	1,683
1991		9,751	7,611	3,500	12,279	2,406	1,232	4,675	809
1990		11,917	7,029	3,292	10,110	1,559	670	4,075	450